Migration to amman: Patterns of movement and population structure.

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MIGRATION TO AMMAN :

Patterns of Movement and Population Structure

by

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TO

IMAN, INAS

AND TO MY PARENTS

A B S T R A C T

This thesis examines the patterns of migration to Amman and its population structure through analysis of a sample survey of 1,748 households conducted by the author in 1977.

Part One is concerned with the population of Jordan and Amman. The growth, distribution and mobility of the population of Jordan are first described. The rapid population growth of Amman is then discussed.

Part Two deals with migration to Amman. First, the volume and flows of migration are analysed, followed by a detailed investigation of the patterns and determinants of migratory movement to the city in times of peace and war. One important result of this study was the effect of the events of 1948 and 1967 upon both the population growth of the city and the nature of the migratory movement; 50% of the sample migrant households were classified as arising from forced movement. Further analysis of the characteristics and spatial variation of the migrant households reveals that they have influenced fertility rates and household sizes in the city, and that they have concentrated mainly in the southern and eastern sectors of the city.

Part Three shifts the focus to the population structure of Amman. The main issue is the youthfulness of its population, a subject which is pursued through analysis of the age structure index, child/woman and dependency ratios. Patterns of household, marital status and educational level as well as the economic composition of the

population are also discussed.

The study concludes by reviewing the population problems of Amman, and by pointing out the retrospects and prospects of the 1977 survey.

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C O N T E N T S

L I S T O F F I G U R E S

L I S T O F T A B L E S

L I S T O F A P P E N D I C E S

A B B R E V I A T I O N S

D.S.	Department Of Statistics, Jordan
ECWA	United Nations Economic Commission For Western Asia, Beirut
ed.	Editor
eds.	Editors
Fig.Figs.	Figure or Figures
Hsh.	Household
Hsh.S.	Household Survey
J.M.C.D.P.	Joint Ministerial Committee For Displaced Persons, Jordan
km.	Kilometre
No.	Number
sq.km.	Square Kilometre
UNESOB	United Nations Economic And Social Office In Beirut
UNRWA	United Nations Relief And Work Agency For the Palestinian Refugees
Vol.	Volume

CHAPTER ONE

INTRODUCTION

I. Aims, Hypotheses and Organisation of The Study

The prime purpose of this study is to undertake a geographic and demographic analysis of the patterns of migration to Amman and its population structure. More specifically, the first aim is to fill a gap in the literature. An examination of the bibliography reveals that very few papers have been published on the population of Jordan, as a whole, and the population of Amman, in particular. For this reason it appears significant that a study should be undertaken on the population of Amman. Hence, this attempt may be considered as the first thesis to be written on the population of Amman, which perhaps adds a little to the very narrow range of research that has been published on Jordan, and provides a basis for more detailed studies in the future.

Secondly, it is desired to investigate the rapid population growth of Amman and analyse the factors affecting it since 1948, especially migration; to identify the patterns of the forced and voluntary movements to the city in periods of peace and warfare; and to examine the population structure of the city under such an abnormal rapid growth.

Thirdly, Amman is suffering from a mass of problems, of which the population problems are the most critical. These, therefore, have been an interesting target of this study.

Rapid population growth has become a major characteristic of large Middle Eastern cities since mid-century. Many of these cities dominate both the urban structure and the economic, social and political life in their countries. Some

have grown as a result of population pressures in rural areas rather than industrial expansion, while others have grown as a result of political and economic developments. Almost all are suffering insufficient housing and public services, unemployment, educational difficulties and transport congestion.

Although many generalizations about urban population in the Middle East appear in the literature, most of the measurement of rates of the components of urban population growth, and of the structure of urban populations is based on inadequate data. The United Nations have provided increasingly, since the early 1960's, comprehensive data for the countries of the region and to a limited extent for some of its large cities. These permit a comparative analyses and provide important insights into future trends in these countries. But, their very comprehensiveness limits their value by precluding intensive examination of urbanization. Thus, detailed studies on urban populations are needed in the countries of this region to permit a comparative approach.

Despite the fact that, theoretically, geography and demography are the two diagonals of population growth, distribution, structure and mobility, the study of population in the Middle East has been in the last 15 years much more concerned with almost one pure demographic phenomenon, namely, fertility, while the contribution of geography has been limited to a leading work by Clarke and Fisher (1972), which emphasizes the rapidity of urban population growth, especially the major and primate cities.

Such a close scrutiny of the study of urban population

in the Middle East from both theoretical and practical view points has resulted in a twofold approach in this study. First, to analyse the relationship between the spatial variations in the nature of places, and the spatial variations in the population growth, composition and migration. Secondly, to examine the relationship between geographical explanation and analysis, and the demographic clarification of the population topics, and, thereafter, perhaps to generalize whether the population problems of large cities are the responsibility of demography, geography or both.

However, very recently some scholars in the population field concerned with the Middle East have emphasized that "the discipline of population study deals with a variety of phenomena other than the population growth and fertility control. It constitutes in fact the foundation for development plans and programmes in all economic and social fields... but as population trends have an impact on development, so does the nature of development influence population trends. We know, for example, that illiterate mothers generally produce more children than literate mothers; that the geographical distribution of economic activities and social services in the country is a major determinant of the geographic distribution of the population ...", (Tabbarah, 1977, 12). Although this demographic perspective stems from the urgent need of development and planning in the region, it confirms the significant role of man-space relationships in the recent population trends.

Jordan is a Middle Eastern developing country in which urbanization is assuming increasing importance. Furthermore,

in virtually all discussions of the role of large cities in urban and economic development, Amman is cited as a classic example of a primate city (Clarke, 1976), and represents an abnormal case of population growth in the Middle East. The volume and speed with which migrants flow into Amman is responsible for this state of affairs. Had their flow been smaller in volume and slower in pace, rural migrants would have been more easily incorporated into the city's modern economic activities, and life style. But the situation is further aggravated by the fact that migration is not evenly or proportionately directed to the multitude of urban centres of the country. Instead, most migrants go to the largest city or the second largest, thus giving rise to the primate city. Furthermore, the limited economic prospects in most of the urban places leaves little scope for rural migrants to move in stages and to adjust gradually to the city life. At the same time these urban places offer less job opportunities to their inhabitants than the capital. Moreover the arrival of the refugees from Palestine and the West Bank has in various respects assisted in speeding up the process of migration to Amman. Such one-sided pattern of internal and refugee movements is not very favourable in social and economic respects, since it creates a host of socio-economic problems and leads to major crises if continued on such scale of volume and speed. Not only migration to Amman has its impact on the population growth, but also it has influenced its population structure, since it consists of a family movement. The population of Amman is characterized by its youthfulness which in turn increased the dependency load.

This process of population concentration in Amman is unfavourable to continue, since its consequences are difficult to counter. On the other hand, many urban and rural areas in the country seem to continue to decline as a result of on-going out-migration to the capital unless wise and guided development plans are set up to diminish the gap between the capital and other parts of the country and thereafter a balanced population distribution.

The size and growth rate of Amman are exceptionally disproportionate in relation to other urban settlements in the country. The excess weight of the capital may be considered as "parasitic" growth, since it tends to retard the economic development of the country as a whole. The growth is an accelerated, but unguided, force that is impeding socio-economic development. It would slow, even more, the process of development.

The Thesis Structure

After a brief description on gathering study material the remainder of the introduction is devoted to describing the official population data available in Jordan, other studies, and a detailed description of the 1977 sample survey of the population of Amman conducted by the author for the purpose of this study. Thereafter, the main body of the thesis shifts break into three parts.

a) Part One examines the population of Jordan and Amman, where Chapter 2 provides an overview of the population growth, distribution and mobility in Jordan. Chapter 3 considers the population growth of Amman and the impact of

migration on that growth.

b) Part Two is concerned with migration to Amman, when Chapter 4 opens a general consideration of the volume of migration, origin of migrant households and time of arrival in Amman. Chapter 5 explores in more detail the nature and determinants of the patterns of migration to Amman, while the migrant households characteristics and their spatial distribution in the city sectors are discussed in Chapter 6.

c) In Part Three, which deals with the population structure of Amman, Chapter 7 analyses the age-sex composition, the child/woman and dependency ratios. Also, age structure indices have been discussed. Chapter 8 deals with the marital status of the population and the household composition in the city. Chapter 9 and 10, respectively, continue the analysis of population structure by presenting the literacy, educational level and school enrollment of the population, in the former; and the economically active population and occupation in the latter.

Finally the above threads are drawn together in the conclusion in Chapter 11, which synthesises the population problems of Amman, mainly those resulting from migration and the population structure, together with retrospectives and prospectives of the 1977 survey.

Throughout the Chapters in this thesis the author has made use of the available statistics and the data collected in the 1977 survey, which is mapped to help in the explanation of the material discussed. This may be considered as the first attempt to produce population maps for Amman.

The Field Work

In order to obtain the necessary data for this study, and to conduct a sample survey on the population of Amman the author made a field work visit to the city between July and October 1977. During this period the author conducted a sample survey (the survey procedure is described in detail later in this chapter), and collected other statistical material from the government departments in the city. Also, the author obtained some basic maps from the Municipality of Amman and the Department of Statistics. However, some difficulties have appeared throughout the preparation of this study. First, the lack and incompleteness of population data on Jordan, were amongst the major problems, since there was only one population census in Jordan, conducted in 1961, which was difficult for a comparative study and also out of date. Secondly, other surveys conducted in Jordan were either incomplete or did not cover the urban areas and the whole country, which hindered the investigation of the urban population in the country and in Amman in particular. Thirdly, the few other studies of the population of Jordan and Amman were based almost entirely on the 1961 census. Considering these difficulties the author has had no alternative but to conduct a sample survey on the population of Amman, and to rely in certain cases on the official statistics and other studies. Therefore, the discussion in Part 1 of this thesis, concerned with the population of Jordan and the population growth of Amman, is based on the available population data, while in Parts 2 and 3 the analysis of migration, population structure and the population problems of Amman is almost

entirely based on the data collected in the 1977 survey.

Finally, apart from data difficulties, some financial problems faced the author during this study. Although the United Nations was the organization responsible for financing this study, unfortunately the author failed to get any financial help from the United Nations to cover the costs of the field work and the survey, despite the immense efforts by the Programme Officers in the British Council and the Supervisor of the study. Thus, the author decided to cover the costs by himself, while the University of Jordan provided transport facilities for the purpose of conducting the survey in Amman.

II. Population Data Available in Jordan

There was never an organized attempt to take stock of the population of Jordan prior to 1952, except for some rough estimates of population, especially those based on the British Government Report to the Council of the League of Nations on the administration of Palestine and Transjordan in 1939 (International Bank for Development, 1957); and those based on the registers of the United Nations Relief and Work Agency for the Palestinian Refugees in 1950. Even in 1952, data on population were only incidental to gathering information on housing and hence the 1952 census of housing confined itself to a count of the total population.

The lack of data on the population of Jordan, and the inadequacies of the census of 1952, were the main reasons to conduct a population census in Jordan on November 18th, 1961. This census constitutes virtually the only source of comprehensive information for any detailed demographic analysis to be made, other than giving information on total size. Early in 1967 the Department of Statistics conducted a survey to examine the migration component in the urban population growth. Unfortunately, as a result of the 1967 June War, data were published for only four cities. Moreover, the political situation following the conflict in 1967 and the Civil War in Jordan in 1970, made it impossible for Jordan to take another census under the circumstances.

The 1952 Census of Housing

In August 1952, the Jordanian Government carried out a census of housing for all the towns and villages of Jordan.

This census was primarily concerned with gathering information as to the number and types of buildings in the country. However, as a by-product of this census, limited information about population may be gained. The census required details of the number and sex of housing occupants, but no other information, and the resulting population count for 1952 was given as 1,329,174. It should be noted, however, that this total does not include three groups : (a) foreigners; (b) the Jordanian Army and Air Force personnel and their families living in military installations; and (c) Jordanian diplomats and their families resident abroad. Thus the 1952 census was really no more than an extended census of housing, with coefficients of occupation applied to give a figure of the national population.

The First Census of Population And Housing, 1961

The first deliberate census of population in Jordan was made on the 18th November 1961 and preliminary figures were issued in September 1962, but the final tables comprising four volumes were not published until April 1964. Also there were nine interim reports published for each district in the country. The first volume presented statistics on the geographic location, personal and cultural characteristics, educational characteristics and fertility. The second volume presented statistics on economic characteristics of the population including type of economic activity, occupation, industry and economic status. The third volume presented data on household and housing characteristics of the population including class, size and structural type of household and the number of members of household reported abroad. The fourth

volume describes the methods used in the census. It is important to mention here that the techniques, methods, divisions and definitions used in the 1961 census are derived from volume four "Methods Report".

The questionnaire was produced in three designs : a household questionnaire, an institutional questionnaire and a card questionnaire to be completed by foreign visitors at hotels. The household questionnaire was divided into four parts : individual data for members of the household were recorded in Part A, individual data for Jordanian members of the household abroad at the time of the census were recorded in Part B, housing data in Part C and internal migration data in Part D. The enumeration was conducted in two stages : first, after a list of households had been prepared, over a period of three weeks the enumerator visited every household in his enumeration area recording details for each individual; second, on Census Day he revisited each household to revise the data to refer to the eve of Census Day.

The distribution data refer to the actual location of persons on Census Day, or, for scattered tent-dwellers, when enumerated. The census was thus a de facto count, and no attempt was made to secure a de jure distribution. However, it is probable that the de facto distribution corresponds closely to the usual place of residence.

In the 1961 census, Jordan was divided into nine census districts, eight corresponding with the main administrative districts and the ninth for Beduin outside these eight districts; in 1952 Beduin were included in the eight districts and they

were not distinguished as a separate unit. However, an undefined number of Beduin are included in the population of the eight districts and not distinguished from the sedentary population.

Defining modes of living presented some difficulty. The line between urban and rural sedentary population is not a clear one in Jordan; moreover, some semi-nomads were enumerated in rural villages and some with scattered tent-dwellers. The inhabitants of Palestine refugee camps are a distinct category, but could not be presented as such because of a commitment by the D.S. not to reveal the numbers reported. Had such data been published, they might have been interpreted as an official statement of the numbers of refugees, a false interpretation because not all refugees are resident in camps, and some residents of camps were seasonally working outside the camps when the census was taken. Refugee and military camp resident figures are concealed by including them in the aggregate population of the locality in which they were situated. Consequently, the following definitions were decided upon :

(a) Fully urban : this includes the population resident in all localities of 10,000 inhabitants and more (excluding localities inhabited only by Palestinian refugees); all district capitals regardless of size; all localities of 5,000 to 9,999 inhabitants in which two-thirds or more of the economically active males were reported in non-agricultural occupations (such as Aqaba); and those suburbs of Jerusalem and Amman cities similarly non-agricultural in occupational pursuits.

(b) Mainly rural : this includes the population resident in all other localities (including Palestinian refugee camps lying outside towns) and in scattered permanent dwellings.

(c) Scattered tents : this includes all scattered tent-dwellers.

Unlike the 1952 Census of Housing, foreigners, armed forces resident in camps and Jordanians abroad were included. The village land area, rather than the locality, was the basis for enumeration in 1952, while in 1961 the district and sub-district areas were the basis for enumeration. Furthermore, some adjustments of administrative boundaries were made through the period 1952 to 1961, and substantial numbers of Palestinian refugees were relocated in new camps.

Comparisons between the 1952 and 1961 data are thus difficult if not impossible for many of smaller localities, and there are limitations in comparability for towns and cities, districts and sub-districts and the whole country. Re-adjustment of territorial and administrative units is another handicap. Prior to 1952 the town of Amman was situated in Balqa district. Owing to the growth of the capital, Balqa district was divided into two separate districts, Balqa and Amman.

In the 1961 census some data collected have not been included in the interim and final tables, such as internal migration and the number of persons per room. It was mentioned in the "Methods Report" that "if that data had been tabulated, then they would have delayed unduly the publication of volumes of the final tables, but it will be tabulated for inter-censal reports as time and resources make such possible". In fact, none of these has since been published. The Jordan tabulation programme was on the whole slightly broader than that recommended by the United Nations for national censuses. Although some recommended tabulations were not produced, others

were included. Those recommended but not produced included tabulations on place of birth, language and ethnic group (for which no data were collected in the 1961 census). Because of the large number of Palestinian refugees in Jordan, a question on place of birth may have been interpreted as political, which kind of question should be avoided in a general census, therefore a part of the questionnaire on internal migration was substituted.

The 1967 Survey On Internal Migration

The lack of adequate and detailed statistics on migration and population growth of cities in Jordan since 1952 was the main reason for the 1967 survey. In fact, this survey was no more than a count of population for 22 towns and cities in Jordan, with special concern for migration during the period 1962 - 1967. The questionnaire in this survey was restricted to those who were living before 1962 elsewhere in the country before moving to their resident locations in March 1967. The D.S. began to conduct this survey in March 1967, but it was not completed because of the June War three months later. Thus data were published for only the cities of Amman, Zarqa, Aqaba and Rusiefeh. Data presented in this survey, concerning migrants to these four cities, included details of personal and cultural characteristics, sex and age structure, marital status, nationality, education, economic activities, occupation and place of origin. Causes of migration and date of migration as well as the number of migrants to each city, were also presented in this survey.

The 1971 Population Census of Amman

The D.S. carried out a "comprehensive" census of the population of Amman city at the end of 1971. It may be necessary to mention that this census was no more than a count of the population and households, and the results of this census were not published. However, the author has obtained a statistical sheet, from the Demographic Section in the D.S. in which the results of that census were included (Appendix I).

The 1958 Pilot Survey

This was the first Social Survey to be carried out in Amman. It was conducted by the Ministry of Social Affairs in February 1958. The results of this survey were included in Hacker's "Modern Amman : A Social Study" in 1960. Although the survey sample is limited to 62 households, it is considered as a significant indicator for the socio-economic aspects of the population of Amman, and in particular for the migratory movement to the city.

The 1966 Social Survey

This survey was conducted under the supervision of the Ministry of Social Affairs and the United Nations Economic and Social Office in Beirut, in 1966. A report on the results of this survey was prepared by UNESOB and it was published in the "United Nation Studies On Social Development in the Middle East" in 1970. The Survey was concerned with the socio-economic status in Amman sub-divisions, and limited information on migration to the city (whether people were born within or outside Amman, date and causes of movement only).

The 1971 Survey of Uncontrolled Settlements

The UNESOB was requested in October 1971 to undertake the design of a survey of uncontrolled settlements in Amman, the preparation of the data and the report of the survey, while the Jordan Institute of Social Work was asked to carry out the actual field work under the overall supervision of UNESOB.

The survey covered the two spontaneous unauthorized settlements Mahata and Jofeh-Ashrafieh, situated respectively on the northern outlet of Amman to Zarqa and on the hillside of Jebel El-Ashrafieh in the southern part of Amman. Random sampling of the survey areas was considered the best possible choice. A total number of effective samples in Mahata was 241 households with a sample population of 1,892, and in the case of Ashrafieh 168. households with a sample of population of 1,172.

Data represented in this survey were concerned with the socio-economic characteristics of the two settlements mentioned above. The results of the survey were published in the United Nations "Studies On Development Problems In Selected Countries of the Middle East" in 1973 under the heading : "Uncontrolled Urban Settlements : A Case Study of Amman, Jordan".

Other Surveys Conducted In Jordan

The D.S. has conducted many surveys in the East Bank of Jordan early in the 1970's since it was unable to conduct a population census in the country due to the political situation after 1967. Among the most important surveys were the Multi-Purpose Household Survey in the East Bank, on-going study, and the 1972 National Fertility Survey in the East Bank.

III. The 1977 Sample Survey Of The Population Of Amman

In the absence of complete coverage of data on population by a census, data have been obtained through a personal survey, which was conducted in August 1977. It was focused especially on migration into Amman, the most dynamic factor in its population growth, and on population structure and housing, in order to ascertain some of the consequences of migratory movement to the city.

The Previous Surveys

Three sample surveys on the population of Amman were conducted in the years 1958, 1966 and 1971, as we have already seen in section II. A sample of only 62 households in the first, and a sample of 5% was taken in the second, and both were social surveys, while the third was concerned with two uncontrolled settlements in the city. The design of the 1958 and 1966 sample surveys was based on a systematic sample of the households drawn from the property tax lists, while the 1971 sample design was based on a random sample after the two sample areas were mapped, enumerated and a 20% sample was taken. In 1958 and 1966 many households were not registered on the tax lists, particularly those in the uncontrolled settlements and refugee camps, and this resulted in a different design for the 1971 sample. It should be mentioned here that the 1966 survey excluded the Palestinians in refugee camps who accounted for 43,000 (i.e. 13.3% of the total population) at that time according to UNRWA figures. A recent issue published by UNRWA in 1970 gives a total of 100,000 registered refugees in camps within the boundaries of Amman city, and according

to the Joint Ministerial Committee For Displaced Persons there are about 140,000 new refugees from the West Bank and Gaza Strip living in Amman city. Together they form 46% of the total population of Amman at the end of 1971.

The 1977 Sample Coverage

This survey covers all those households selected from different blocks within the boundaries of the Municipality of Amman. The term 'household' is used here to describe a unit consisting of one person or more occupying one house of which the members share their food and other like requirements. The members may consist of the father, mother, children and any married sons, their families, and any other relatives who are living with the family. The households of the "Special Organizations" as defined by the D.S. were excluded from the study. These represent the people living in hotels, foreign commissions and their families, the military forces in special camps, those who are under medical treatment in the hospitals, prisoners and college students.

The 1977 Sample Frame

The city of Amman now contains 9 sectors for statistical purposes, and these are divided into units and sub-units, which are further sub-divided into blocks. The total number of blocks in the city is 1,861, but 41 empty blocks were uninhabited so for our purpose the total is 1,820.

The number of households in Amman was estimated by the D.S. at 106,000 of which 4,028 were living in "special organizations" were consequently excluded. A rough estimation of the percentages of the households in each sector was supplied

to the author by the Demographic Section in the D.S.

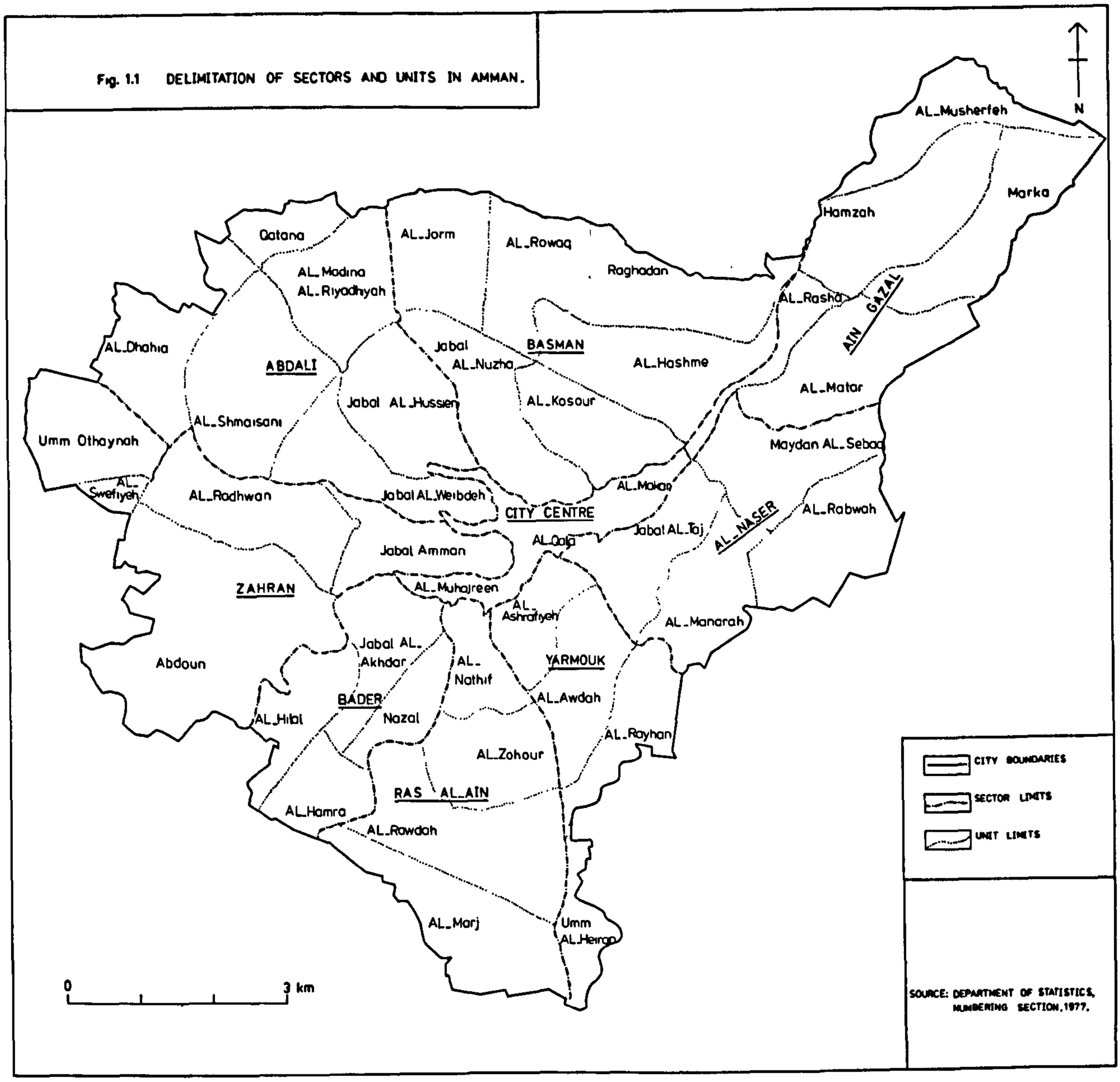
A recent map of the delimitation and numbered sectors and units of the city (Fig. 1.1), was sufficient to select a sample of blocks from each sector. Unfortunately, the secondary street identification signs and individual building numbers were incomplete at the time of the survey, so the 1977 sample had to be selected from blocks in the first stage and from buildings within the selected blocks in the second stage.

The Sample design

1. A stratified random sample of blocks : The main problem which had to be considered before selecting the blocks was the cost of sampling. In this respect, the limited financial facilities made it difficult to take a large sample, since the United Nations did not co-operate in the conducting of this survey, while the University of Jordan supplied the author with transport facilities only. Consequently a relatively small sample was possible of 46 blocks out of 1,820, i.e. 2.5% of the total. The 46 blocks were selected by a stratified random method from the nine sectors in the city according to the percentages of blocks in each sector.

2. A systematic sample of the households from the selected blocks : Another problem arose because of the unequal number of buildings in each block, although some of the employees in the Numbering Section in the D.S. mentioned an estimated average of 75 buildings per block. To take a systematic sample according to that average was difficult because many blocks contained less buildings than the suggested average. So it

Fig. 1.1 DELIMITATION OF SECTORS AND UNITS IN AMMAN.



was decided to take the sample according to the minimum number of buildings in those selected blocks which contained less than the average. A visit to each selected block was arranged with the co-operation of one of the Numbering Section employees, the purpose being to delineate the blocks in the field and to check the minimum number of buildings within these blocks. As a result it was discovered that 57 buildings were the minimum number in these blocks. This led to the decision that it was reasonable to take 57 buildings in each block and then select the household sample from an equal number of buildings in each block. A systematic sample of 38 households(i.e. 67% of the total) was selected from each block. In fact a very small number of buildings contained more than one household, and for these buildings there was no alternative but random selection of one household in each building.

In general, the sample was stratified random in the first stage (selecting random blocks from each sector according to its proportion of the total), and systematic in the second stage (selecting the households from the blocks). The survey covered 1,748 households in 46 blocks distributed throughout the 9 sectors in the city, i.e. 1.7% of the total estimated number of households in Amman, which, it is suggested, gives a suitable representation of the various areas and populations of the city (Table 1.1).

The Questionnaire*

The questionnaire consisted of 24 questions divided into the following three sections : 1. Population structure.

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* An English translation appears in Appendix II.

2. Migration to Amman. 3. Housing.

Table 1.1 Selected Blocks and Households in Each Sector for the 1977 Sample Survey

Sector	Number of Inhabited Blocks (1)	%	Sample Blocks	Sample House-holds
City Centre	127	7.0	3	114
Basman	340	18.7	9	342
Ain Gazal	240	13.2	6	228
AL-Naser	211	11.6	5	190
Yarmouk	226	12.4	6	228
Ras El-Ain	162	8.9	4	152
Bader	82	4.5	2	76
Z ahran	174	9.5	4	152
Abdali	258	14.2	7	266
Total	1820	100.0	46	1748

(1) Source : Department of Statistics, Numbering Section, Statistical Sheet, 1976.

The first section concentrated on the population structure, namely age, sex, place of birth, marital status, degree of education, occupation and employment. These characteristics have been affected by the rapid population growth of the city within the last 30 years, since the population of Amman has increased from an estimated figure of 60,000 in 1948 and 108,304 in the 1952 census to an estimated figure of 691,120 at the end of 1976. No doubt that this growth had a great influence on population structure, especially the age, sex and occupation, therefore it was obviously essential to examine these characteristics.

The population growth of Amman was noticeably affected by the movement of refugees after 1948 and 1967. In 1971, according to UNESOB report on the uncontrolled settlements, Amman's annual growth rate was estimated at 9.0%, of which 5.7% was due to net migration and 3.3% to natural increase. This was the reason for devoting the second section of the 1977 survey questionnaire to migration. The questions were concerned with date of arrival in Amman, area of origin, number of migrant household members, migration steps, causes of movement and occupation of the migrant head of household before and after settling in Amman. More attention was also given to the study of migration in this survey because it is the first attempt to investigate the migration process to Amman in some detail. Previous studies or surveys have mainly concentrated on some of the broader aspects of migration to Amman. The relevant questions in the 1966 Social Survey and the 1967 Survey on migration are both incomplete. The former did not mention the place of origin or migration steps, and restricted the questions on the causes of migration to economic factors. The latter was concerned with migrants to Amman for the period 1962-1967, i.e. before the June War.

A recent study by Kawabe (1973) based entirely on the 1967 survey, concluded that the family relationship was one of the most important factors behind migration to Amman. More surprising, Azar (1974, 12) in his study on the population situation of Jordan argued that migration to Amman is atributable to rural-urban migration.

In the light of these differing views it was considered significant to obtain more detailed information on migration to

Amman in an attempt to explain the dominant factor behind this migration and to what extent the city was affected. The aim of the third section was to investigate the housing problem in Amman as a result of the rapid population growth, and to check the person per room density, quality of housing, and any desires to move to new premises through government backed organizations.

Interviewing

Interviewing the heads of households was undertaken by the author and five students from the Department of Geography in the University of Jordan. Prior to the conduct of the survey from 24th August to 13th September 1977, the interviewers were trained for a period of six days. At the same time, with the help of one of the employees of the Numbering Section, the selected blocks were defined precisely on the map as well as in the field. It is important to mention here that one of the selected blocks was defined incorrectly due to a discrepancy between the boundaries shown by the D.S. map and that of the Municipality of Amman; consequently an alternative block was selected.

Two days before starting interviewing, a random block was selected for a sample study to examine the ability of respondents to answer the questions, and to give more chance to the employed students to gain practical experience on the nature of the survey. During the interviewing most of the respondents were co-operative, and the questionnaires were checked by the author directly after interviewing. Eight questionnaires of the sample had to be disregarded because they were incomplete. The total number of effective samples

was therefore 1,740 households.

Data Processing

In Durham the questionnaires were translated on to computer punch-cards and then kept in files. The Statistical Package for the Social Sciences (SPSS) has been utilized in all steps concerning data processing, crosstabulation and analysis. The final tables of the 1977 Survey data can be seen in Appendix III.

Comments on the Statistical Areas

It proved very difficult to compare precisely the figures and distribution of the estimated households as prepared by the D.S. at the end of 1976 to those of the 1971 census of Amman, and this may be attributable to the following :

1. The new statistical boundaries made it impossible to compare 1971and 1976 figures because in the former the city was divided into 23 census areas, while in the latter the city was divided into sectors, units, sub-units and blocks. This situation hindered the attempts to follow up the recent developments of the statistical areas of 1971. A number of questions were raised. Had the boundaries changed or not? If so, had new areas been added or original areas omitted?

2. Using the maps supplied by the Municipality and those of the D.S., it was difficult to make any meaningful comparison between 1971 and 1976 population figures and statistical areas, because the boundaries were different in both maps for certain areas.

3. Some areas were empty but were included within the new statistical boundaries because they represented the future

development areas of the city. On the other hand, new inhabited areas had been added to the city after 1971, but did not exist on either maps.

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PART ONE

THE POPULATION OF JORDAN AND AMMAN

CHAPTER TWO

THE POPULATION OF JORDAN

I. Individuality of Jordan

Jordan is a country established within extremely hard geographical, economic and political conditions. Geographically, Jordan is situated in a transitional area between the desert and sown (about 84% of the total area of Jordan is desert as estimated in the 1961 census). Economically, the agricultural land of Jordan is limited to the Jordan Valley and some belts in the highlands of the West Bank and the northwestern part of the East Bank. Mineral resources are limited to phosphate. Politically, Jordan is the outcome of catastrophic political events in the area, which began with the first World War, and continued with the second World War, the Palestine Tragedy in 1948, the 1967 conflict and finally the 1970 Civil War in Jordan.

The broad population characteristics of Jordan are affected by the three conditions mentioned above; the first is reflected in the population distribution in the country; the concentration of population in the capital and large towns is influenced by the second; and the population growth is affected by the third. The political fortunes of the area were the prevailing factor affecting the population dynamics in Jordan, and it is an excellent example of how the fragmented political structure of the Middle East has left its "superimposition" upon the region (Clarke, 1972A).

Jordan is a country of modern creation. Not more than 60 years ago, it was a district of the province of Damascus, a small part of the Ottoman Empire (Hirabayashi and Ishaq,1958).

In 1920, it was put under the British Mandate, but early in 1921 a conference was arranged between Emir Abdullah (son of Sherif Hussain, ruler of Mecca), Sir Herbert Samuel, T.E. Lawrence and Winston Churchill, the result of which was that rule over Transjordan was turned over to Abdullah to be administered under the control of the High Commissioner for Palestine (Patai, 1958).

In 1946 the Kingdom of Transjordan celebrated its complete independence under King Abdullah. The British troop withdrawals began on 14th May 1948, and the British Mandatory government of Palestine was officially terminated. On the same day the Jewish National Council declared the establishment of a Zionist State in Palestine (Patai, 1958).

The population of Transjordan was estimated in 1938 at 300,000 (International Bank For Development, 1957). In 1947 the East Bank territories were thought to have a population of 400,000 (Fisher, 1972; Ettema, 1970). After the Palestine Tragedy in 1948, a portion of Palestine comprising about 5,650 sq. km., lying on the west of the River Jordan, was added to transform Transjordan into the present-day Hashemite Kingdom Of Jordan, and the population of the area so added was estimated to be 400,000 (Thavarajah, 1970; El-Badry, 1965).

Apart from this, there was a sudden influx of a further 450,000 refugees from the remainder of Palestine (Hindle,1964). Thus although Jordan gained 6.3% of its territory, its population had unexpectedly increased three times (El-Badry,1965). In 1967 Jordan received another shock after the June War between Arab and Israel, which was to increase problems of

Jordan, for as a result of that War about 385,000 refugees removed to the East Bank (J.M.C.D.P., 1968).

The above discussion suggests that, Jordan of all the Arab countries of North Africa and South West Asia, has the briefest history. Yet no other country in the region has had such turbulent times as Jordan, which has become a country of refugees and displaced persons.

II. An Immigrant Country

The lack and shortage of data about population in Jordan before 1952, unfortunately, is one of the main problems to any scholar investigating the population growth in Jordan. All the population figures in the country before 1952 are conjectural estimates of population.

The most significant fact with regard to population growth in Jordan, in recent times, was the trebling of its number as a result of the annexation of the West Bank and the inflow of Palestine refugees, which increased the population to about 1.25 million within a single year. It has been estimated that in 1949 the total population of Transjordan numbered about 400,000, and that the number of residents in that part of Palestine later incorporated into Jordan was approximately 400,000, to these a rough figure of 450,000 refugees was added, giving a total of about 1,250,000 people in 1949 (Patai, 1958; Hindle, 1964).

According to a census of housing prepared in 1952, the total population of Jordan was 1,329,174. In the nine years period from 1952 to the 1961 census the population increased by nearly 28.4% from 1,329,174 to 1,706,226. These figures, however, do not tell the whole story : the 28.4% increase in less than 10 years does not represent the growth of population by natural increase. Many refugees have left their camps and settled in various parts of the country especially in Amman. Migration generates migration and when people become uprooted by war and expulsion they are inclined to stay on the move.

In 1967, as we have seen, Jordan received another shock and 385,000 refugees moved, during and after the June War, from the West Bank and Gaza Strip to the East Bank. Thus migration played a predominant part in the population growth of Jordan, which has been a country where refugees and displaced persons form a majority of the population (Fisher, 1972), a fact demonstrated during the civil war in 1970 (Clarke, 1972 A). In 1975 they comprised 59% of the total population. Furthermore, this fact was one of the most important minutes discussed in the 13th session of the Palestinian National Council, which was held in Cairo on the 13th of March 1977.

As illustrated in Figure 2.1, the growth of the population has been steadily upward from 1.3 million in 1952 to 1.7 million in 1961 to 2.4 million in 1971 to 2.8 million in 1976 (The Department of Statistics, 1953, 1964, 1971 and 1976). The annual growth rate of 2.8% for the period 1952 to 1961 has been increased to 3.2% in 1970 and to 3.3% in 1976 (ECWA, 1978). If this growth continues, as suggested in the United Nations projections, then the population will reach 3.7 million in 1985, 4.4 million five years later and close to 5.6 million in the year 2000, but as growth has been uneven, any projections are likely to be very tentative.

Traditional attitudes are usually accused of being among the most influential factors behind the high rate of reproduction. Also it was mentioned, from another point of view, that the sudden transfer of population, the fact of continuous living in special camps and the unsettled nature of things could have had serious effects on the physical and

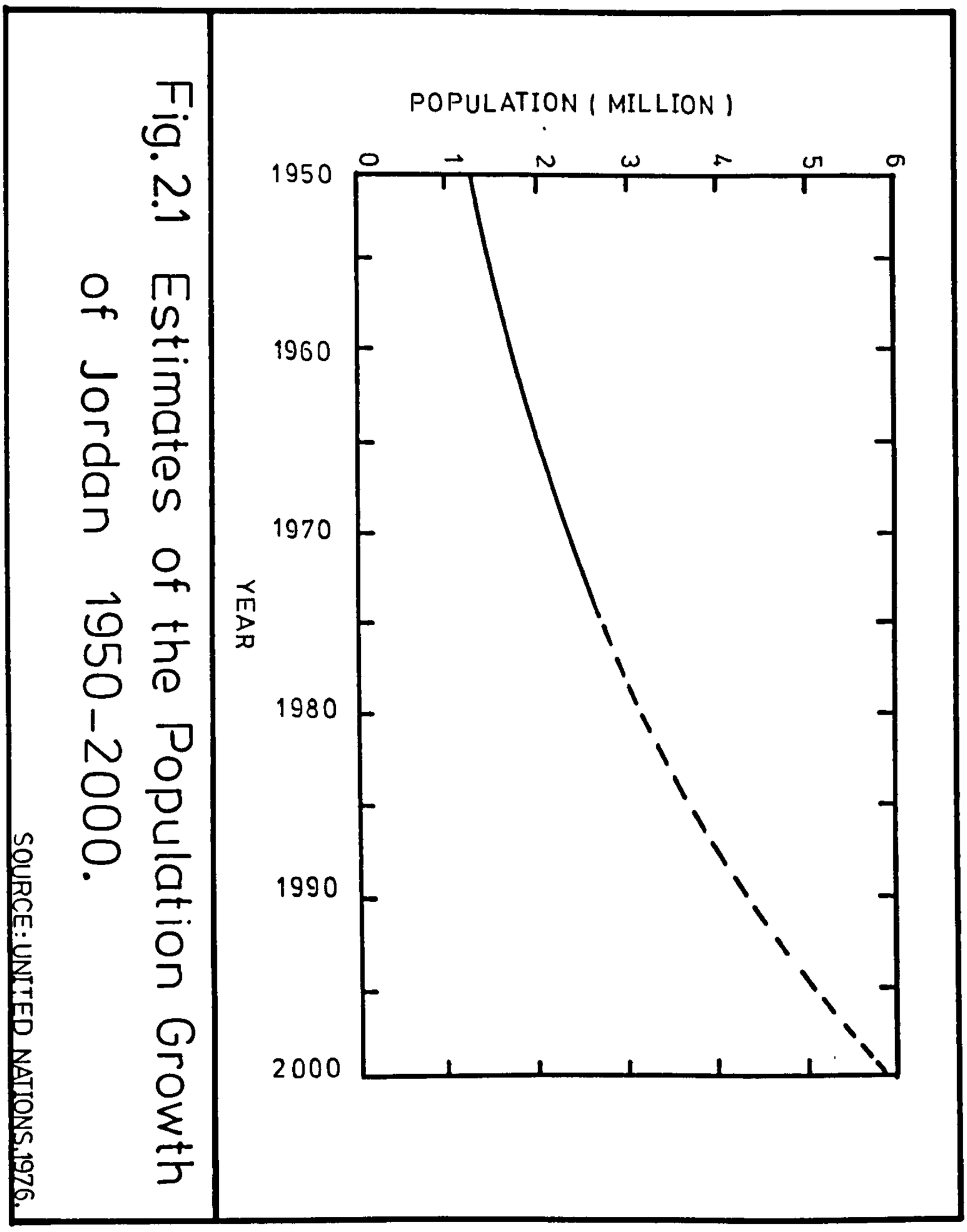

Fig.2.1 Estimates of the Population Growth of Jordan 1950-2000.

SOURCE: UNITED NATIONS.1976.

psychological conditions of life which in turn have affected marriage, births and death (Thavarajah, 1970).

To examine the high live birth rate for females, a survey was conducted on human fertility in Jordan in 1972. The survey explained the close relationship between the cultural level of the population groups and the birth rate, which declines among higher socio-economic groups and vice-versa. The survey also detected that there is more fertility differential among education groups than among socio-economic groups and still more than among settlement groups (see Table 2.1). Consequently, one may ask are the improvement of education and income, and modernizing the rural areas the means to control the population growth?

Table 2.1 Live Births per 1000 Females Among Different Groups in the East Bank, Jordan, 1972.

Settlement Classes		Socio-Economic Classes		Education Classes	
Urban	5.1	Class I	4.3	University	2.6
Rural	5.2	Class II	5.0	Secondary	3.1
Refugee Camps	5.6	Class III	5.3	Illiterates	6.1

Source : Rizk, 1972, Tables 8, 10, 11 and 12

Statistics of the last two decades indicate that birth rates are around 45 or 46 per thousand annually, while the death rates for the same period declined from 21 per thousand in 1961 to 14 or 15 per thousand in 1972, and this now means a natural increase of about 30 to 32 per thousand annually (Tutunji, 1972), among the highest in the world. Improvement of public health was responsible for this increase by reducing

the death rates. The average fertility is over 8 births per woman at the end of her child-bearing life (Rizk, 1972). The death rate has been declining and will continue to decline, and therefore the gap between the two vital forces is increasing.

III. Population Distribution and Density

The total area of Jordan is about 96,000 sq.km.* of which the cultivable area is estimated to be about 13,000 sq.km., one-third of which is located in the West Bank (Azar, 1974). The other parts of the country are arid desert which is partially utilized as a grazing area.

The climatic and topographic factors shape the pattern of population distribution in Jordan through the agricultural pattern they impose. Topographically Jordan can be divided into the following regions : (a) The West Bank uplands, (b) The Jordan Valley - Dead Sea - Wadi Araba, (c) The East Bank uplands, and (d) The Desert (Beheiry, 1973). The majority of the population are living in the uplands, while both the desert and the depression areas are sparsely populated, the first mostly by a few thousands of nomadic population. About 96% of the total population live in what is termed "Settled Jordan", (Figure 2.2) the area of some 22,000 sq. km. which forms 22.9% of the total land area lying to the west of the Hidjaz railway line, namely the two highland areas and the Jordan Valley (D.S., 1964).

Rainfall distribution and the pattern of cultivation are largely responsible for this phenomenon, but other factors have appeared only recently. The sudden inflow of more than half a million homeless refugees from Palestine and the consequent mushroom growth of the Amman-Zarqa conurbation have supplemented the influence of geographical factors upon

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* The Total Area Reduced from 97,740 sq. km. to 96,000 sq. km. According to border adjustment between Jordan and Saudi Arabia in 1966.

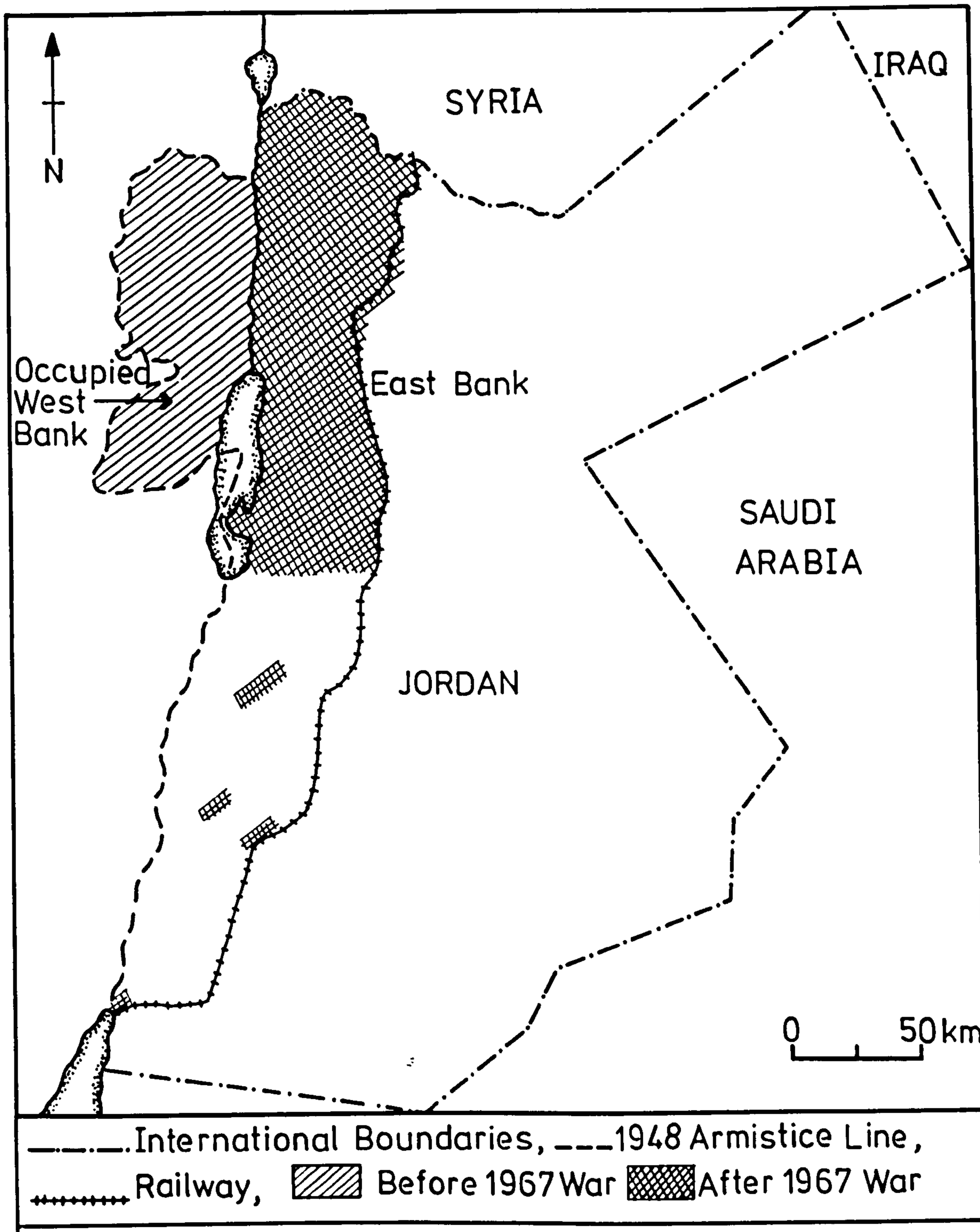

Fig. 2.2 Settled Area In Jordan.

SOURCE: DEPARTMENT OF STATISTICS, 1965. (ADJUSTED)

the regional distribution of population (Figure 2.3).

In the desert areas east and south of the eastern highlands, the physical factor which determines the population distribution is the availability of a sufficient water supply. In the Jordan Valley, where many new farms have been set up under the "Eastern Ghor Canal Project", extensive irrigation and the consequent increase in cultivated land brought about changes in the pattern of population according to different modes of life, rural and urban, which will be discussed later under "Rural-Urban population".

West-East Population Movement

Since the establishment of the Kingdom of Jordan in 1949 there has been a general tendency of population movement towards the East Bank. As illustrated in Table 2.2, the population movement and changing patterns of population distribution are among the important characteristics of the Jordan population. The two Banks started in 1949 with equal numbers of population, and thereafter they were unbalanced. In 1952 the great human balance overweighed the West Bank which absorbed the first shock when the majority of the refugees settled here near their occupied land, having confidently expected to return to their home within a few weeks (Beheiry, 1973); even those who arrived in Amman on the East Bank have had the same feeling (Hacker, 1960).

With the time passing, as in the case of the law of "Hydraulic Analogy", great masses of people moved from the overcrowded West Bank to invest in the new realms of commerce, agriculture and industry in the new virgin East Bank. Thus the

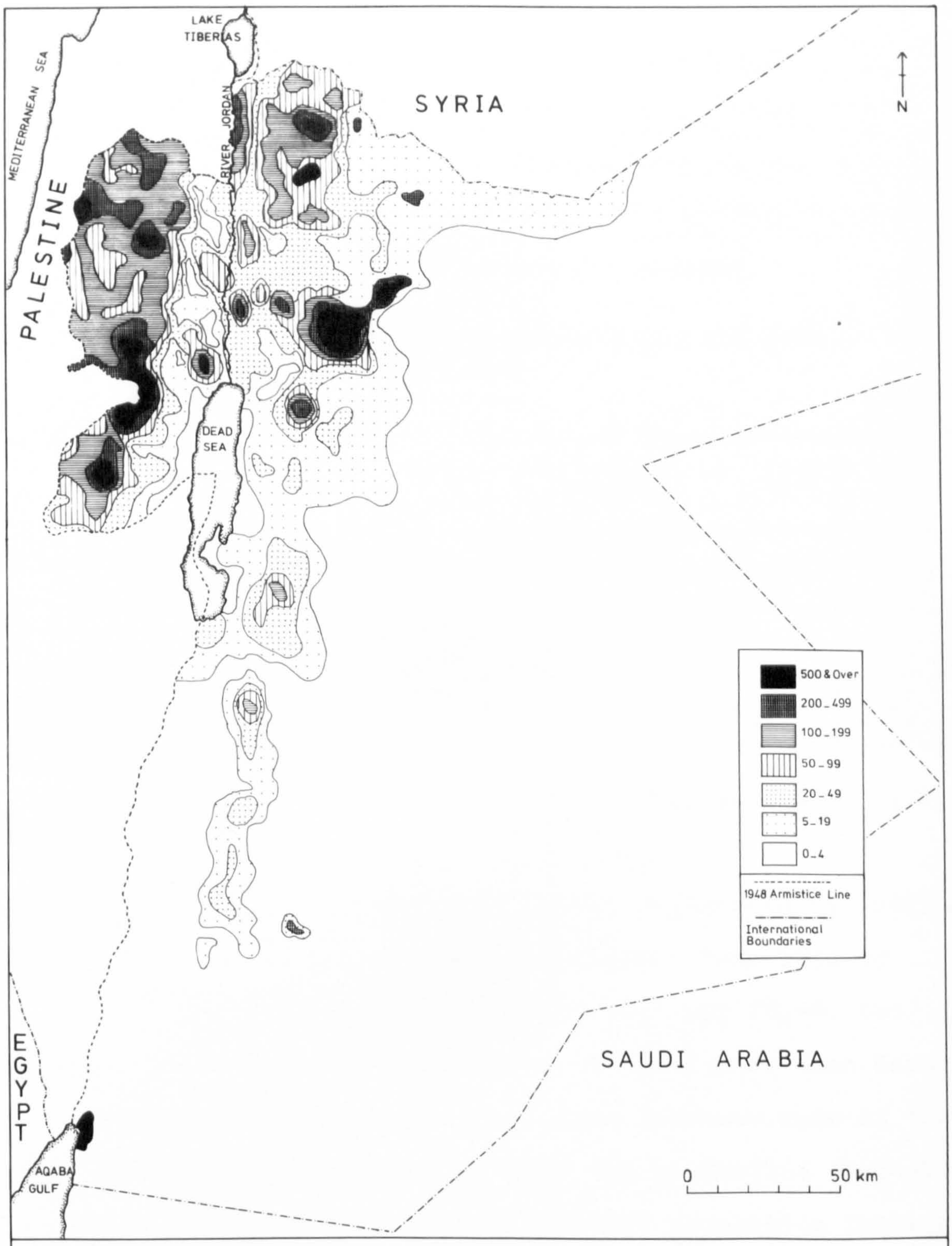

Fig. 2.3 POPULATION DENSITY IN JORDAN, 1961.

SOURCE: DEPARTMENT OF STATISTICS, 1961 CENSUS

1961 census revealed the majority of population on the East Bank. This trend continued thereafter until 1967 when the East Bank absorbed the second shock and subsequently its population numbered 2-3 times the population of the West Bank (Table 2.2). Therefore the economic motives became less important than the political fortunes as a prevailing factor in the transformation of the population balance.

Table 2.2 East-West Population Distribution in Jordan, 1952-1975

	1952	1961	1969	1971	1975
East Bank	586,885	900,776	1,600,000	1,723,000	1,952,000
West Bank	742,289	805,450	650,000	700,000	771,000
Total	1,329,174	1,706,226	2,250,000	2,423,000	2,723,000

Source : D.S., 1953, p.12, 1964, p.28, 1969, p.3, 1971, p.2, 1975 estimate

The above mentioned facts can be emphasized by looking at the rates of increase within each Bank. From 1952 to 1961 the national population increase rate was 28.4%, but the East Bank confirmed an increase of 58.3% more than double the national rate, while the population increase rate of the West Bank was only 8.5%. This trend was emphasized through the 1961 to 1971 period when the national population increase attained 42%, and in the East Bank the figure jumped to 91%, while the West Bank attained a population decrease of 13%. However, since 1971 the numbers in the West Bank appear to have increased again, to 771,000 in 1975. Nevertheless, it is evident that there is a marked regional imbalance involving

rear stability of overall numbers in the West Bank and a rapid rise in the East Bank.

Population Density

It was mentioned earlier that water is a controlling factor of the population distribution in Jordan, like most of the Arab countries which are distinguished by a characteristic concentration of population, while the remaining area of the country remains uninhabited. This leads to a great difference between the general density, total population divided by the total land area, and the physiological density, total population divided by the cultivated area. In 1971 the general density in Jordan reached 25 persons per sq. km., while the physiological density was 110, more than four times the former. If we restrict consideration to the distribution in cultivated areas only, the density was 260 persons per sq. km. in the West Bank and 153 persons per sq. km. in the East Bank in 1961. This density declined in the West Bank to 226 persons per sq. km. in 1971, and increased in the East Bank to 253 as a result of the inflow of refugees after the 1967 War (Table 2.3).

The influence of natural conditions on population densities is revealed by the ratio of rural population to agricultural land. Thus in the western highlands a density of 137 persons per sq. km. in rural areas of cultivated land prevailed, while in the eastern highlands the density was 100 persons per sq. km. in 1971 (see Table 2.3).

Table 2.3 Population Densities in Jordan, 1961 and 1971

Region \ Year And Density	1961			1971		
	Population per sq. km.		Rural Population per sq. km. of Cultivated Area	Population per sq. km.		Rural Population per sq. km. of Cultivated Area
	Land Area	Cultivated Area		Land Area	Cultivated Area	
West Bank	143	260	163	124	226	137
East Bank	55	153	54	105	253	100
Settled Area	78	189	96	110	242	112
Jordan	18	-	-	25	-	-

Source : D.S., 1964, p.28; 1971, p.5.

The pattern of population distribution can be examined through the Figure 2.4. The majority of population is concentrated in a small area. In 1961, nearly 91% of the total population were located in 15% of the total area, while in 1974 about 94% of the total population were living in the same area. Moreover Figure 2.4 shows that 40% of the total population are concentrated in Amman district, i.e. in 3% of the total area of the country. This gives a high density of 428 persons per sq. km. in Amman district, which contains both Amman city and Zarqa and is closely located to the desert. That concentration of population aroused Clarke's concern when he described "Amman and the Jordanian desert" as evidence of the high concentration in the capital (Clarke, 1976, 11).

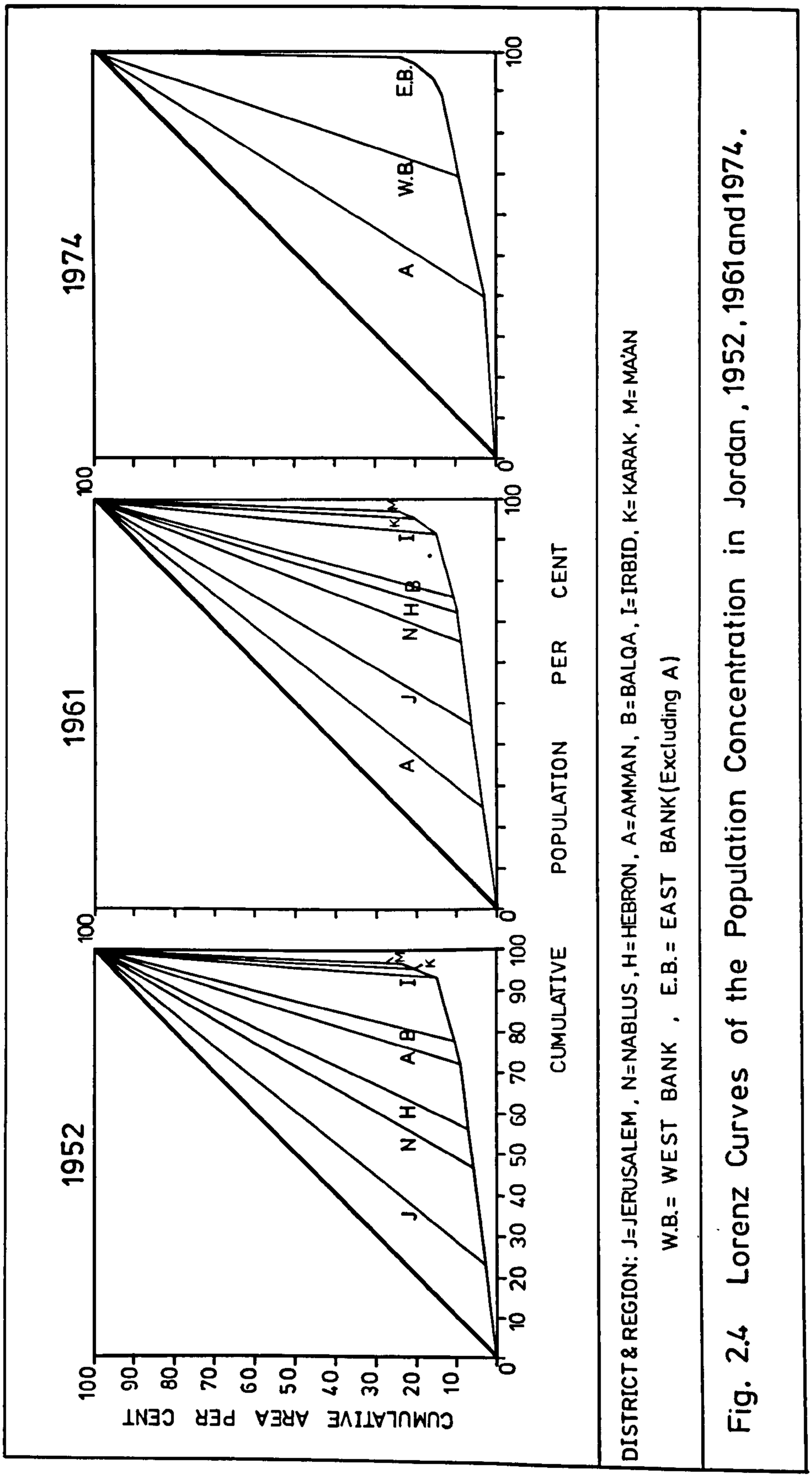

Fig. 2.4 Lorenz Curves of the Population Concentration in Jordan, 1952, 1961 and 1974.

IV. Rural-Urban Population

Like the people of many Arab countries, the people of Jordan can be roughly classified into three main groups with the parallel forms of settlement : (a) the pastoral nomads in tents, (b) the sedentary agriculturists in villages (including refugees in camps outside towns), and (c) the urban dwellers in cities and towns.

(a) Nomads

Not all the tented population are necessarily nomadic. Only 3.1% live in the desert while the remaining 2.4%, though living in tents, are variously termed semi-nomads, semi-sedentary, or stable bedouin (D.S., 1964). Nearly all sedentarized bedouin have retained the traditional shelter of their ancestors, the tent, and tented refugees within or adjacent to large towns are really part of the urban population.

(b) Rural

Most of the villages in the two highlands are found spread out along the windward facing slopes where rainfall can support cultivation. Even in the arid Jordan Valley, it is on the eastern bank of the river, and not on the western bank - which lies on the leeward side - that village life flourished in the past as well as in the present (D.S.,1966). Modern irrigation schemes concern themselves almost entirely with the eastern side of the Ghor where water from perennial rivers and seasonal wadis is sufficiently abundant to justify the cost of harnessing it.

According to the 1961 census, there were well over a thousand (1,067) villages in Jordan, but only 78 villages had a

population of 2,000 or more inhabitants. The largest concentration of villages was found in Irbid district (Ajlun formerly), with 259 village settlements, of which 18 had 2,000 and more inhabitants (D.S.,1966).

The eastern and western highlands each have about the same number of villages, while the Ghor contained quite a few isolated village settlements on the eastern side of the river.

About 300,000 registered refugees lived in camps in Jordan in 1976 (UNRWA, 1976), of which more than two-thirds lived in the East Bank camps. This is another pattern of settlement classified as rural in the 1961 census, but in fact it represents a compulsive concentration superimposed upon its inhabitants without any reasonable geographical basis.

(c) Urban

The characteristics of the urban areas differ sharply from those of the villages. Many settlements statistically defined as "urban" in the 1961 census are, however, no more than fairly large villages. Jarash, Ajlun, Qalqilia and Tafeeleh, though capitals of subdistricts, are functionally rural, not urban. It is nearly always difficult to draw the line between towns and villages, or between rural and urban communities, and the statistical approach is often unsatisfactory from a geographical point of view (Clarke, 1972 B), for this reason the urban classification in Jordan must be treated with some reservation.

Jordanian towns are primarily communities of traders and processors, which have grown up around an outdoor market

or through the expansion of a village which has assumed commercial functions. Some towns, however, have flourished nearby the ruins of ancient cities, like Madaba and Jarash. As to the location of Jordanian towns, we may observe that almost all the urban settlements are scattered in the belt of denser population parallel to the Rift Valley.

According to the 1961 census, "fully urban" includes : all inhabitants of localities of 10,000 persons or more (excluding locations inhabited only by Palestinian refugees) ; all district and subdistrict capitals regardless of size; and these localities of 5,000 to 9,999 inhabitants, as well as those suburbs of Jerusalem and Amman cities, in which two-thirds of the economically active males were reported in non-agricultural occupations.

Changing Rural-Urban Population

The growing tendency towards urban concentration becomes clear from data on population distribution in 1952 and 1961 (Table 2.4). Only nine years before the first census, in 1952, the two rural and nomadic groups still accounted for 64% of the total population, while fully urban people held a share of only 36%. but this percentage increased to 44% in 1961 (D.S.,1964), and to an estimated level of 56% in 1976 for Jordan East and West Banks (ECWA, 1978). If we consider the East Bank only, then the urban population, as estimated in 1976, reached a figure of 66% of its total population (D.S., 1976).

However, much more important is the fact that urban growth affected almost exclusively the East Bank, and in particular the district of Amman. The total urban population

Table 2.4 : The Population of Jordan by Mode of Living

1952 and 1961

District/ Region	Total Population		Fully Urban Population		Rural Population	
	1952	1961	1952	1961	1952	1961
Nablus	23.7	20.0	16.0	12.3	28.1	26.0
Jerusalem	22.7	20.2	31.7	20.6	17.5	19.9
Hebron	9.4	7.0	7.4	5.1	10.6	8.5
West Bank	55.8	47.2	55.1	38.0	56.2	54.4
Irbid	16.2	16.1	7.9	8.7	20.8	21.8
Balqa	4.9	4.6	3.2	2.1	5.8	6.6
Amman	16.4	25.5	31.2	48.1	8.1	7.7
Karak	6.7	3.9	1.1	1.0	9.1	6.2
Ma'an		2.7	1.5	2.1		3.3
East Bank	44.2	52.8	44.9	62.0	43.8	45.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source : D.S. 1953, p.1; 1964, Vol.1, p.28

increased by 265,900 or 55% between 1952 and 1961. Amman district alone absorbed 209,700 new inhabitants or 79% of this increase, and thus grew by 140%. There was consequently a decline or only a very slight increase in the percentage of urban population in other districts. In the West Bank it dropped from 55% in 1952 to 38% in 1961 (Table 2.4).

Regional distribution of the rural population, on the other hand, changed comparatively little in 1961, due to the rather fixed pattern of cultivation and land supply. In the years 1952 and 1961, more than three quarters of this group clustered in the West Bank and Irbid district where soil fertility and favourable conditions of rainfall are suitable for agriculture.

The drift from the west to the east of the country, manifested in the growing concentration of people in Amman district, has led to a rapid congestion in a limited number of urban places rather than to a re-distribution of the rural sector of the population.

In absolute terms, both population groups increased. Between 1952 and 1961 the total population grew by 377,000 or 28.4%, but rural population increased by 111,000 or 13.1% only (D.S., 1966). The decline in the proportion of the rural population was due to the pressure on land and limited possibilities of expansion of cultivable land. Here it may be argued that the high density of the population in rural areas is itself a factor in the extent of urbanization achieved by the country, as the case in most of the Arab countries (Vaidyanathan, 1974). In all districts except for Balqa and Jerusalem, the rural population grew more slowly than the

urban group. In Hebron district it even declined in numbers (Table 2.4). Therefore, it may be suggested that the predominant factor of regional re-distribution of population is migration.

Rural-Urban Migration

Although Jordan has no longer traditions of urban life than Syria, it has now a higher proportion of town dwellers because of the influx of refugees and displaced persons (Clarke, 1972 A) which has caused many cities in the East Bank to witness a high rate of growth in the last two decades.

Amman-Zarqa conurbation which doubled itself four times through 1952-1967 is a good example for the crowding urban phenomenon. The influx of migrants to this conurbation drew many problems, i.e. scarcity of water resources, shortage of housing,inadequate public utilities, congestion and transport complexity. Thus many scholars have argued that several of the development and planning problems are concentrated within this capital concentration (Clarke, 1976; Beheiry, 1973; Rizk, 1972; Hacker, 1960).

There is no doubt that the rural-urban migration was responsible for the rapid growth of urbanization in Jordan (Table 2.5). Unfortunately no records on migratory movements within Jordan are available to disclose the number of persons involved, nor are vital statistics complete enough to assess for every district the volume of net migration by subtracting from total population increase the balance of births over deaths.

Although the D.S. conducted a survey on migration to the towns and cities in Jordan in 1967, data appeared

concerning only 4 cities in the East Bank, and the survey was not completed owing to the 1967 War. Thus we are obliged to rely on this document for the period 1962 to 1967, and on the natural population growth in all districts during 1952 to 1961.

To find out the approximate pattern of internal migration in Jordan for the inter-censal period 1952 to 1961, natural growth may be assumed to have been approximately the same in all districts and equal to 28.4% (the rate of population increase in Jordan from 1952 to 1961). In fact, natural growth differs from one area to another, but it is very unlikely that these differences are such as to affect seriously the pattern of net migration based on equal vital conditions.

In Table 2.5 it is seen that in all districts except Amman out-migrants outnumbered in-migrants from 1952 to 1961. In Amman district net migration accounted for 70% of its total population growth, while the West Bank region as a whole lost about 70% of its natural increase by migration movements. As was to be expected in the rural areas of all districts out-migration surpassed in-migration.

In Jordan, movement of migrants is almost exclusively directed to the two largest cities Amman and Zarqa. Irbid and Aqaba absorbed also many migrants. Irbid's population grew by more than 60% through migration, and Aqaba's population even by more than 180% between 1952 and 1961, but in absolute terms the net influx was comparatively small. Aqaba and Irbid gained about 5,000 and 15,000 migrants, respectively, out of a total net volume of almost 190,000 migrants,

Table 2.5 Pattern of Population Growth and Net Internal Migration in Jordan, 1952 to 1961, (Percentages)

District / Region	Total Population		Fully urban Population		Rural Population	
	total growth	net * migration	total growth	net migration	total growth	net migration
Nablus	8.4	-20.0	19.8	- 8.6	7.7	-23.7
Jerusalem	14.2	-14.2	0.8	-27.6	28.0	- 0.4
Hebron	- 4.9	-33.3	5.2	-23.2	- 9.0	-37.4
West Bank	8.5	-19.9	6.9	-21.5	9.4	-19.0
Ajlun(Irbid)	28.1	- 0.3	71.2	72.8	18.8	- 9.6
Balqa	21.8	- 6.6	4.5	-23.9	27.2	- 1.2
Amman	98.5	70.1	139.6	111.2	8.0	-20.4
East Bank North	58.2	29.8	116.6	88.2	17.7	-10.7
Karak	...	...	34.0	5.6	...	...
Ma'an			111.8	83.4		
East Bank South	27.3	- 1.1	78.3	49.4	18.8	- 9.6
Jordan	28.4	-	55.1	26.7	13.1	-15.3

* net migration has been assessed by subtracting from the individual percentages of total growth 28.4% to account for natural increase. "..." not distinguished.
Source : D.S., 1964, p.28.

comprising 130,000 from rural areas and 60,000 from urban places mostly situated in the West Bank (D.S.,1966). In contrast, Amman and Zarqa cities together received about 90% of this balance, equal to more than four times their volume of natural growth.

More specifically, a rural-urban movement is proceeding at a very high pace from nearly all parts of the country to the capital, Amman, and to Zarqa and Aqaba. In the 1967 survey on internal migration the total volume of migrants to Amman, Zarqa, Rusiefeh and Aqaba for the period 1962 to 1967 before the June War was 44,054 migrants. Amman absorbed 63% of the total migrants, Zarqa 28%, Rusiefeh and Aqaba 4% each. Although Amman gained more than half of the migrants, Aqaba and Zarqa grew by 50% each through migration, while Amman and Rusiefeh grew by 30% each through migration (Table 2.6).

It may be interesting to note that the district of Ma'an, to which Aqaba belongs, shows an urban growth of population of nearly 112% which is the highest of all districts except Amman. The newly developed port of Aqaba shows a spectacular increase of population from 2,835 inhabitants in 1952, to 8,908 in 1961, to 13,480 in 1967 and to an estimated figure of 15,000 in 1970, which is an increase of approximately 272% (Samha, 1973).

Natural increase was also responsible for the rapid population growth in urban areas. Between the population classified as 'urban' and 'rural' in the 1961 census, no differences in fertility seem to appear (Ettema, 1970). Also the fertility survey in 1972 explains that traditions and family relations in Jordan were stronger than the changes brought about by urban life (Rizk, 1972), and that the family pattern was therefore left on the whole intact. On the other hand, mortality in urban areas is lower than in rural areas. The living conditions, nutritional levels and the health improvements are better in urban areas (Vaidyanathan, 1974).

Table 2.6 Percentages of Natural Increase and Migration in Some Cities of the East Bank, Jordan, 1952 - 1967

City	Percentage Increase	Natural Increase	Migration
Amman	33.9	22.7	11.2
Zarqa	26.3	13.3	13.0
Rusiefeh	66.9	42.0	24.9
Aqaba	51.3	25.1	26.2

* Calculated by the author according to the 1967 survey

V. City-size in Jordan

The variety in regional distribution of urban population has affected the pattern of city-size distribution in the country. By using the threshold of 10,000 inhabitants, as a lower limit of urban status, about 40% of the total population in 1967 were living in 14 cities. Some 9.4% of the total population lived in 9 localities of 10,000 to 50,000 size, 14.2% in four localities of 50,000 to 120,000 and 16.4% in the capital. This reflects the concentration of population in the capital, and the high degree of primacy of Amman which has been described by Clarke in 1976 as a classic example of a primate city.

Amman has had a remarkable growth since Jordan was established, from practically nothing to a teeming city of about 691,120 inhabitants. The city has doubled its population more than twice in the last two decades from 108,304 in 1952, 246,475 in 1961, 330,220 in 1967, 520,720 in 1971 and to an estimated number of 691,120 in 1976 (D.S. Censuses and Estimates).

A study of the size of urban settlements in Jordan confirms the extraordinary growth of Amman and Zarqa compared to other urban centres (Fig. 2.5, 2.6, 2.7). With the exception of Jerusalem, all other urban centres according to the 1961 census, had a population of less than 50,000 each. In 1952 Amman, with a population of 108,304, was slightly more than twice as large as Jerusalem (46,713), which then was the second city of Jordan. According to the 1961 census, however, Zarqa with a population of 96,080 held the second place, and

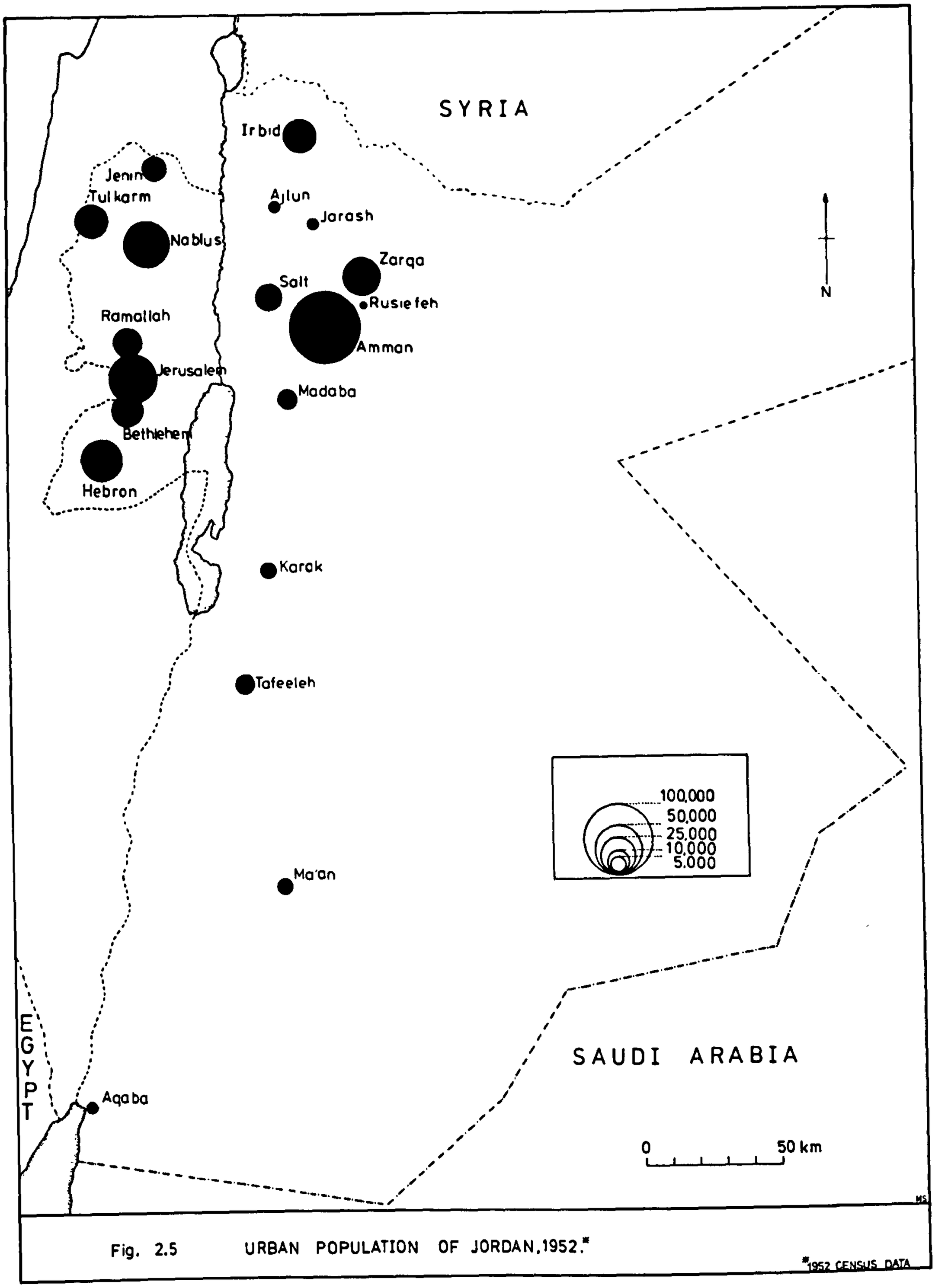

Fig. 2.5 URBAN POPULATION OF JORDAN, 1952.*

*1952 CENSUS DATA

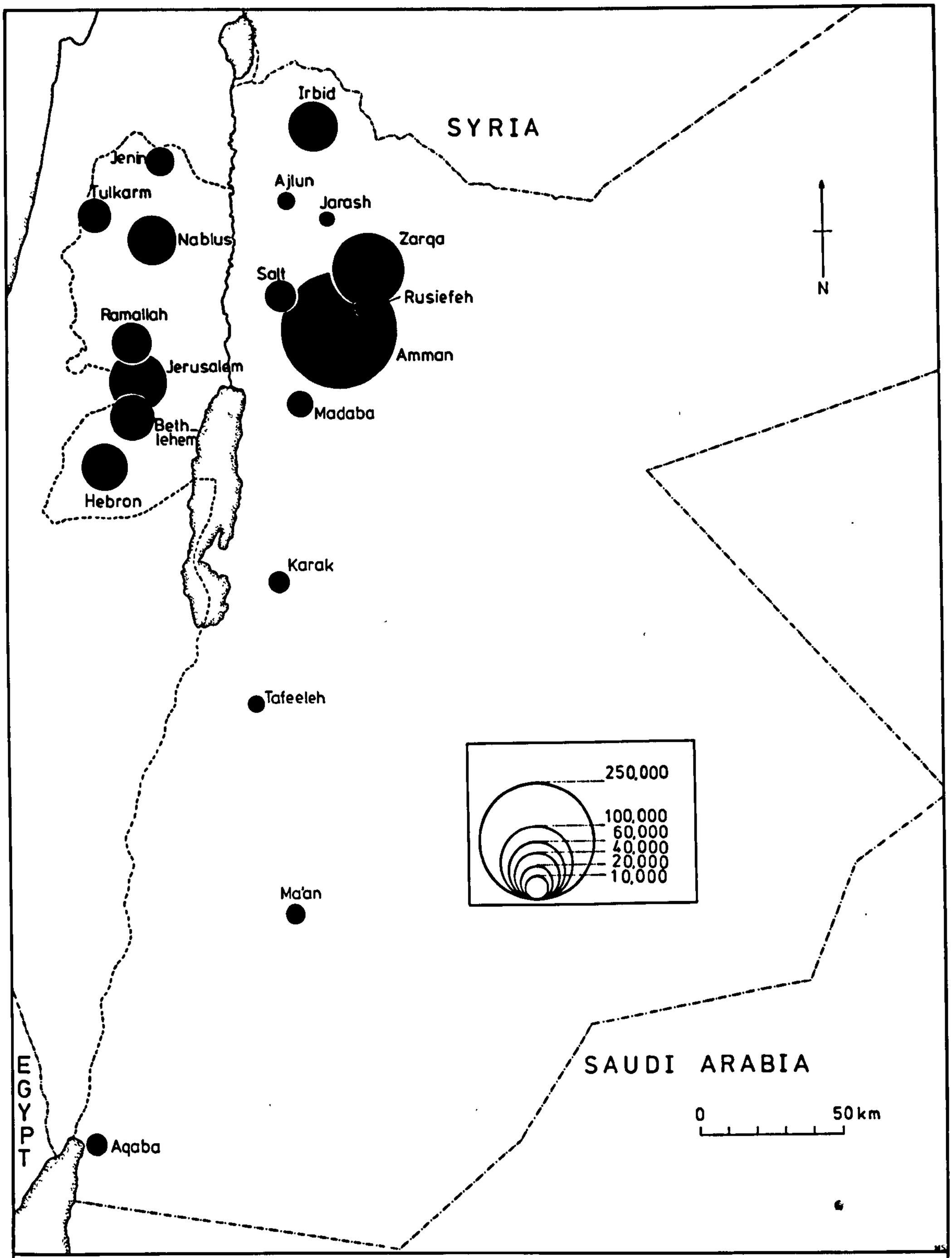

Fig. 2.6 URBAN POPULATION OF JORDAN, 1961.*

*1961 CENSUS DATA

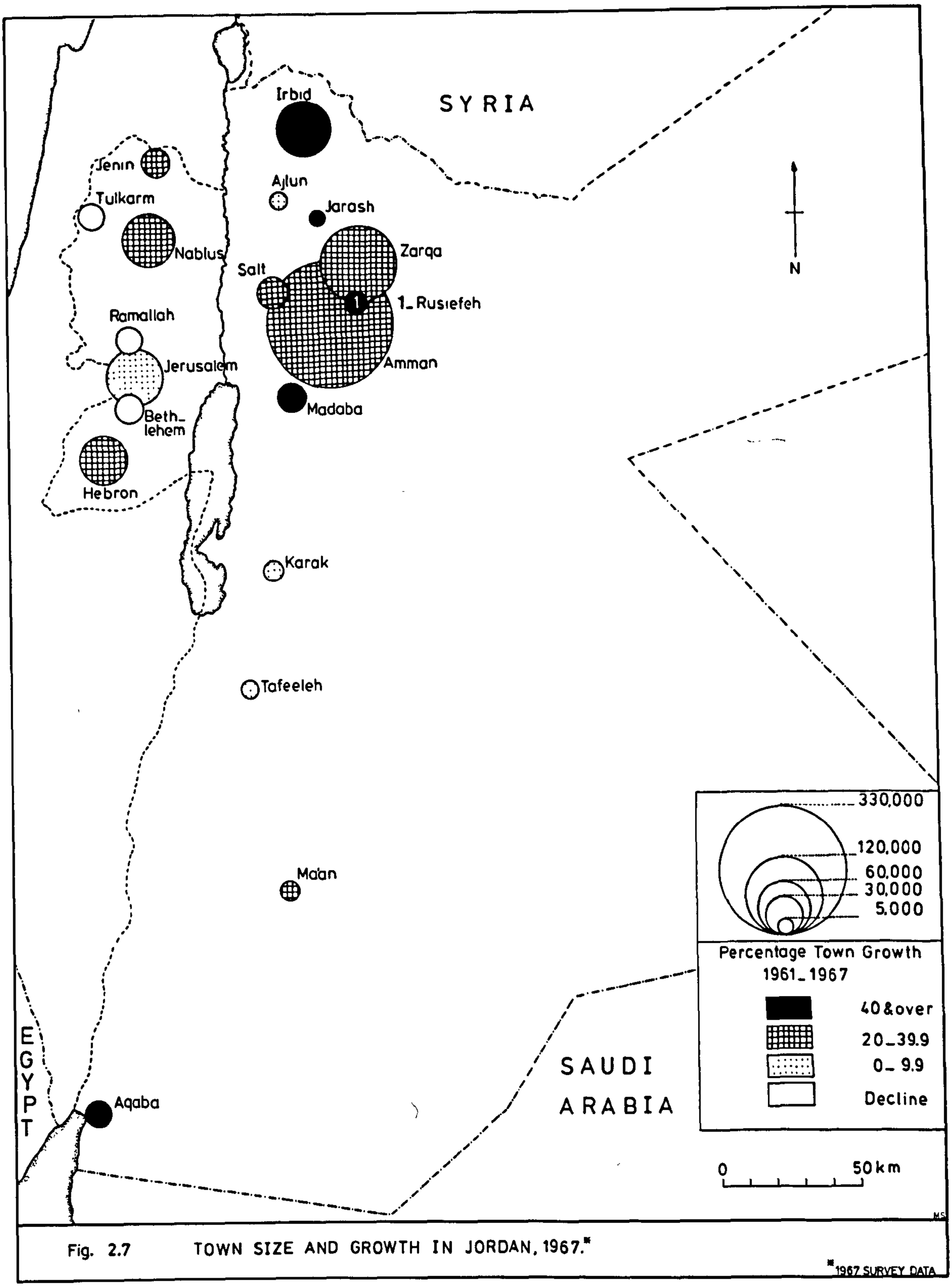

Fig. 2.7 TOWN SIZE AND GROWTH IN JORDAN, 1967.*

*1967 SURVEY DATA

Amman's population had grown to 246,475, i.e. four times that of Jerusalem and nearly two and a half times that of Zarqa (Table 2.7). The predominant factor of this rapid growth of Amman and Zarqa was the influx of refugees and rural-urban migration.

With very few exceptions, many towns of the eastern highlands have shown a considerable increase of urban population since 1952, while several towns of the western highlands have shown a considerable decrease (Table 2.7). From 1952 to 1961 the percentages of the total urban population in the cities of Nablus, Jerusalem and Hebron had declined from 11% to 7%, 12% to 9% and 9% to 5% respectively. In the same period the percentages of the total urban population in the cities of Irbid, Zarqa and Amman increased from 6% to 7%, 8% to 14% and .27% to 35% respectively.

Furthermore, the rank of West Bank cities has also declined. In 1952 Jerusalem was the second city of Jordan; Nablus the third, Hebron the fourth; Zarqa the fifth and Irbid the sixth. In contrast, in 1967, Zarqa held the second place, Jerusalem the third; Irbid the fourth; Nablus the fifth and Hebron the sixth. Amman's population in 1967 counted 330,220,i.e., nearly three times the population of Zarqa and five times that of Jerusalem (Fig. 2.8). This can be only explained first, by the growing attraction of Amman as the capital of the country, and secondly by the fact that other cities in Jordan declined at the expense of Amman, especially cities of the West Bank like Tulkarm, Ramallah and Bethlehem, which declined by 26%, 55% and 54% respectively. Instability of city rank-size was also caused by rural-urban

Table 2.7 Population Growth and Decline of Cities and Towns of Jordan, 1952, 1961 and 1967

City/Town	1952	1961	1967	Percentage Increase Or Decrease * 1961-1967
	West Bank			
Jenin	12663	13845	18160	31.2
Tulkarm	21872	20690	15220	-26.4
Nablus	42499	45768	56846	24.2
Ramallah	17145	29269	13111	-55.2
Jerusalem	46713	60488	65920	9.0
Bethlehem	19155	35735	16280	-54.4
Hebron	35983	37868	49364	30.4
	East Bank			
Irbid	23157	44685	62563	40.0
Ajlun	2518	5384	6287	16.8
Jarash	2614	3743	5284	41.2
Salt	15478	16176	20543	27.0
Zarqa	32000	96080	121303	26.3
Rusiefeh	800	6200	10350	66.9
Amman	108304	246475	330220	33.9
Madaba	8545	11255	17188	52.7
Karak	5539	7422	8460	14.0
Ma'an	4509	6643	8672	30.5
Aqaba	2835	8908	13480	51.3
Tafeeleh	8588	4500	5600	24.4

Sources : D.S., 1953, P.13; 1964, Vol. 1, P.35; 1967 Migration Survey, P.9.

* Percentages calculated by the author

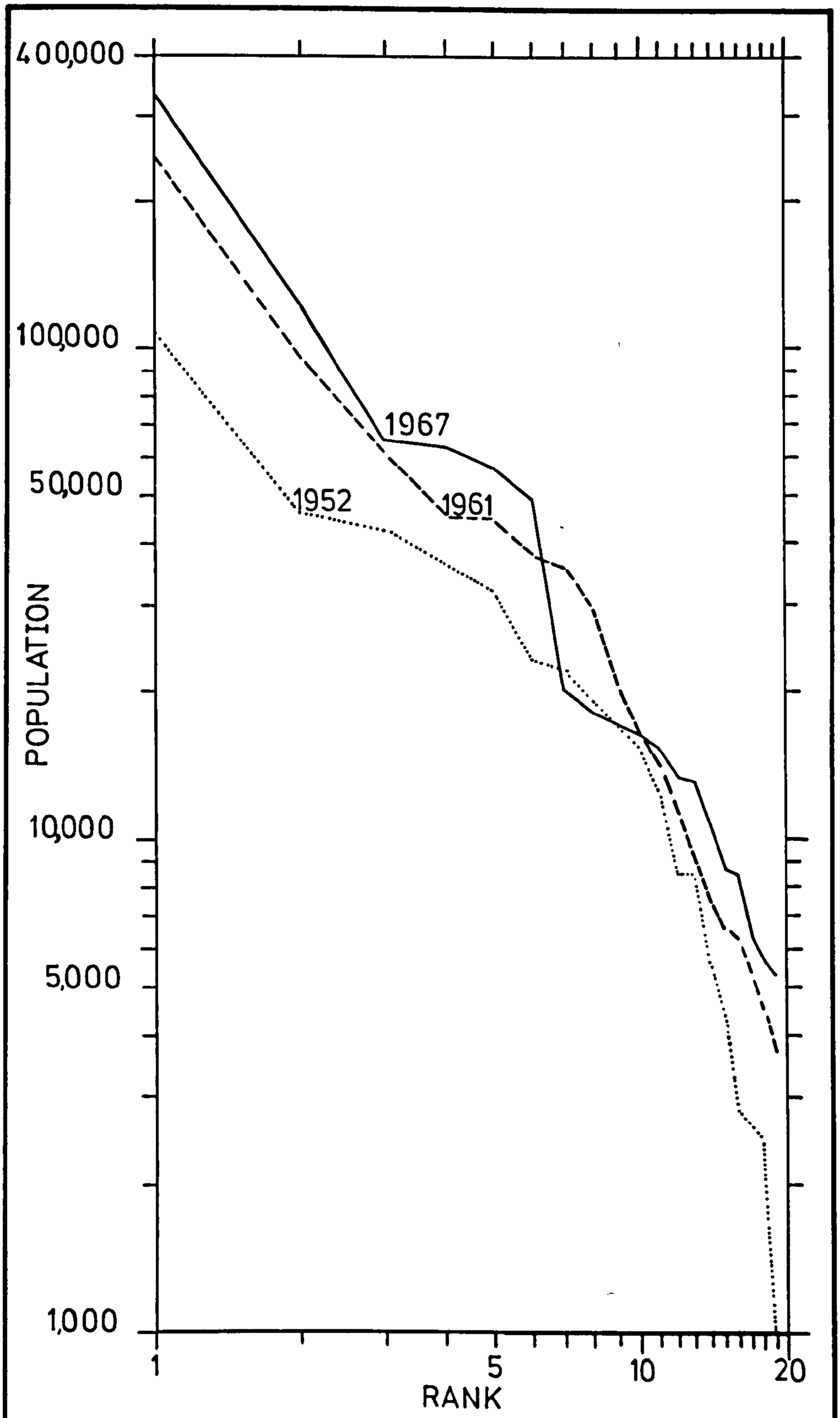

Fig. 2.8 Rank_size of the Cities and Towns of Jordan.

migration to some cities of the East Bank; Aqaba, Madaba and Rusiefeh increased by 51%, 53% and 67% respectively (Fig.2.9). This process also affected the rank of other cities in the East Bank like Karak and Ma'an. Karak, Salt and Tafeeleh are among the East Bank cities most affected by departure of migrants; the slight increase of 14% in Karak was behind its declining rank. On the other hand, the growth of Zarqa and Rusiefeh both close to Amman, was affected to a large extent by the growth of Amman city. The three cities contained about 55% of the total urban population in 1967 before the War.

The 1967 War has disrupted the whole pattern of population distribution in both the West Bank and the East Bank. For the time being this pattern in the East Bank of Jordan is characterised by the dominance of a primate city, Amman, and a very few medium size cities and small towns, villages and hamlets (Fig. 2.10). According to the 1976 estimates by the D.S., the urban population of the East Bank forms about two-thirds its total population, while the remaining include a very small proportion of nomads (no estimates have been published by the D.S. for the West Bank except for its total population).

Amman city accounted for 34% of the total population of the East Bank and 52% of its urban population (Table 2.8). The primacy of Amman is obvious by comparing its size to that of the second, third and fourth cities. Amman with a population of 691,120, is nearly three times as large as Zarqa (258,160), 5 times as large as Irbid (133,1760), and 17 times as large as Rusiefeh (40,490).

Therefore there is a large concentration of the population of the East Bank in Amman. Furthermore the figures in

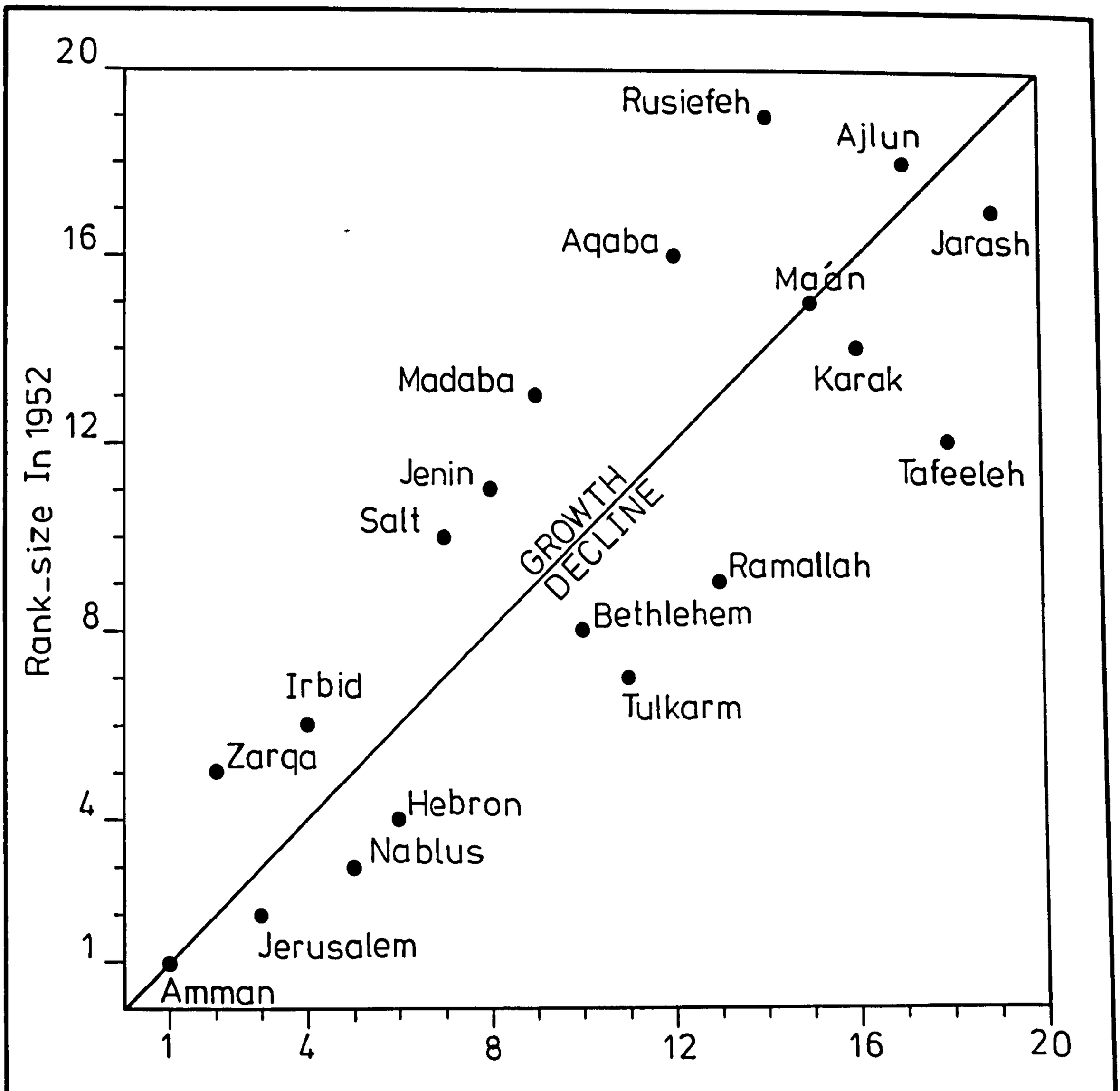

Fig. 2.9 Growth and Decline of the Rank_size of Cities & Towns of Jordan, 1952_1967.

SOURCE: TABLE 2.7

Table 2.8 show that Zarqa, Rusiefeh, Amman, Suweileh and Wadiesir together contain more than a million inhabitants, in what may be called 'Amman Conurbation'. As a result of that concentration and the rapid population growth, the city has experienced a period of unprecedented expansion. The rapid population growth was beyond the city's capacity for accommodation. This may be due to the fact that the city has received a sudden influx of refugees in 1948 and in 1967, which affected almost all aspects of life in the city.

Table 2.8 Estimated Urban Population of the East Bank, Jordan, 1976.

City/Town	Population December 1976 Estimate (1)	Per Cent of the Total Population of the East Bank	Per Cent of Urban Population of the East Bank
Amman	691,120	34.2	52.0
Zarqa	258,160	12.8	19.5
Irbid	133,760	6.6	10.1
Rusiefeh	40,490	2.0	3.1
Madaba	28,530	1.4	2.1
Salt	27,870	1.4	2.1
Ramtha	25,090	1.2	1.9
Aqaba	16,840	7.2	1.3
Mafraq	16,660		1.3
Wadiesir	15,200		1.1
Suweileh	14,000		1.1
Ma'an	12,420		
Karak	12,280		
Tafeeleh	11,400		4.4
Jarash	10,920		
Shonneh Shamalieh	8,270		
Ajlun	4,130		
Total	1327,140	66.8	100.0

(1) D.S., 1976, A Statistical Sheet

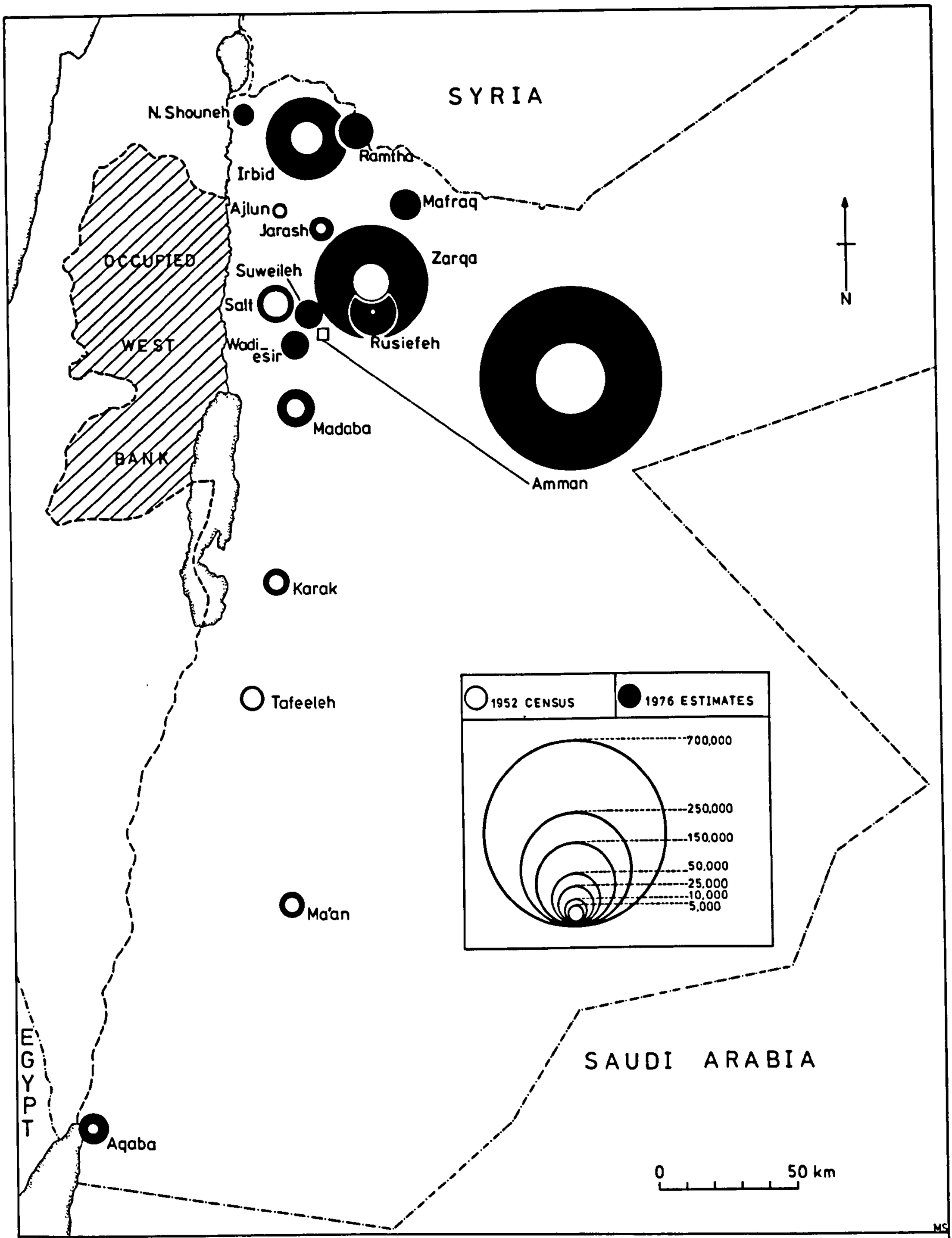

Fig. 2.10 URBAN POPULATION OF THE EAST BANK, 1952–1976.*

*1952 CENSUS DATA: D.S. 1976.

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CHAPTER THREE

THE POPULATION GROWTH OF AMMAN

I. The Development of Amman

A hundred years ago the small village of Amman had revived its early history, when the Circassian refugees (who came from Daghestan after the Russian-Turkish war in 1877) settled on the ancient site of Roman Philadelphia. At the end of the 19th century the Circassians established themselves well in Amman, and the village started its function as a commercial centre for the land east of the River Jordan. In 1905 the Hidjaz railway between Damascus and Ma'an was completed. This railway has a single track passing three miles east of Amman, which gave more advantages for trading activities in the city. In 1918 the Turkish troops were forced to withdraw from Amman and the British troops replaced them. By 1920 Transjordan came under the British Mandate and in 1923 Amman was selected as the capital for the newly formed Amirate of Transjordan (Hacker, 1960). At that time it was estimated that Amman had a population of only 5,000; this rose to the estimated figure of 10,000 in 1930, and 20,000 in 1940 (Table 3.1). This increase may be attributed to the role of Amman as the capital of the nation, and the headquarters of the British troops in Transjordan, as well as its crucial situation in the second World War as a safe place to supply the military forces with food and equipment. This resulted in a rapid growth of trading activities in the city, which in turn attracted many people to Amman from other areas in the country.

Although the expansion of Amman started early in the 1920's, the beginning of the actual quantitative extension and qualitative change was in 1948 (Fig. 3.1), when a flood of refugees poured into the city from Occupied Palestine (Hacker, 1960). Amman, as the capital of Jordan, offered a great variety of jobs and better economic prospects for villagers and refugees, especially when the agricultural land failed to support the growing population. In addition to being the administrative, political, judicial and financial centre of the country, Amman is also the seat of all major economic, trading, manufacturing and educational institutions.

Another surge of expansion occurred after 1967 when the city received another shock as a result of the occupation of the West Bank and Gaza Strip, and another influx of refugees arrived in the city. Furthermore, the city in 1974 and 1975 received some refugees from Lebanon who have sought refuge in Jordan since the civil war engulfed their country. Also some foreigners arrived in Amman as a result of the trouble in Lebanon, a number of whom are transferring their businesses from Beirut to Amman. As a result of the whole refugee movement the population of the city has rapidly increased. At the end of 1976 it was estimated that 691,120 inhabitants were living in Amman (Table 3.1).

From the above historical course of Amman, it may be described as a city of refugees. This is not surprising if we know that the early Circassian settlements are still called "AL-muhajereen" (migrants), and 6 major refugee camps still exist in the city. In this respect, Jane Hacker pointed out that two-thirds of the migrant families who arrived between

Table 3.1 Population Estimates in Amman

Year	Population	Source
1923	5,000	J. Hacker
1930	10,000	"
1940	20,000	Ministry of Health Annual Report,1948
1948	60,000	" "
1949	61,591	" " 1949
1952	108,304	The 1952 Housing Census
1961	246,475	The 1961 Population Census
1967*	330,220	Est. Department of Statistics
1971	520,720	Comprehensive Count.Dept.of Statistics
1976	691,120	Est.Dept. of Statistics

* Before war

Table 3.2 Average Annual Rate of Population Growth In Amman 1948-1976 *

Date	Population (1)	Intercensal period (years)	Population Increase	Av.Ann. Rate of Growth	Av.Ann. Rate of Natural Increase	Av.Ann. Rate of Migration
1948 May	60,000	4.25	48,304	14.9	3.0	11.9
1952 August	108,304	9.25	138,171	9.3	3.3	6.0
1961 November	246,475	5.5	83,345	5.2	3.3	1.9
1967 May	330,220	4.5	190,500	10.6	3.3	7.3
1971 December	520,720	5.0	170,401	5.8	3.3	2.5
1976 December	691,120					

* Calculated by the author

(1) Source : Table 3.1

1948 and 1958 were refugees from Occupied Palestine. A similar situation occurred between 1967 and 1977 when the sample survey, which I have conducted, revealed that 65% of those who arrived in the city during that period were refugees from Occupied West Bank and Gaza Strip.

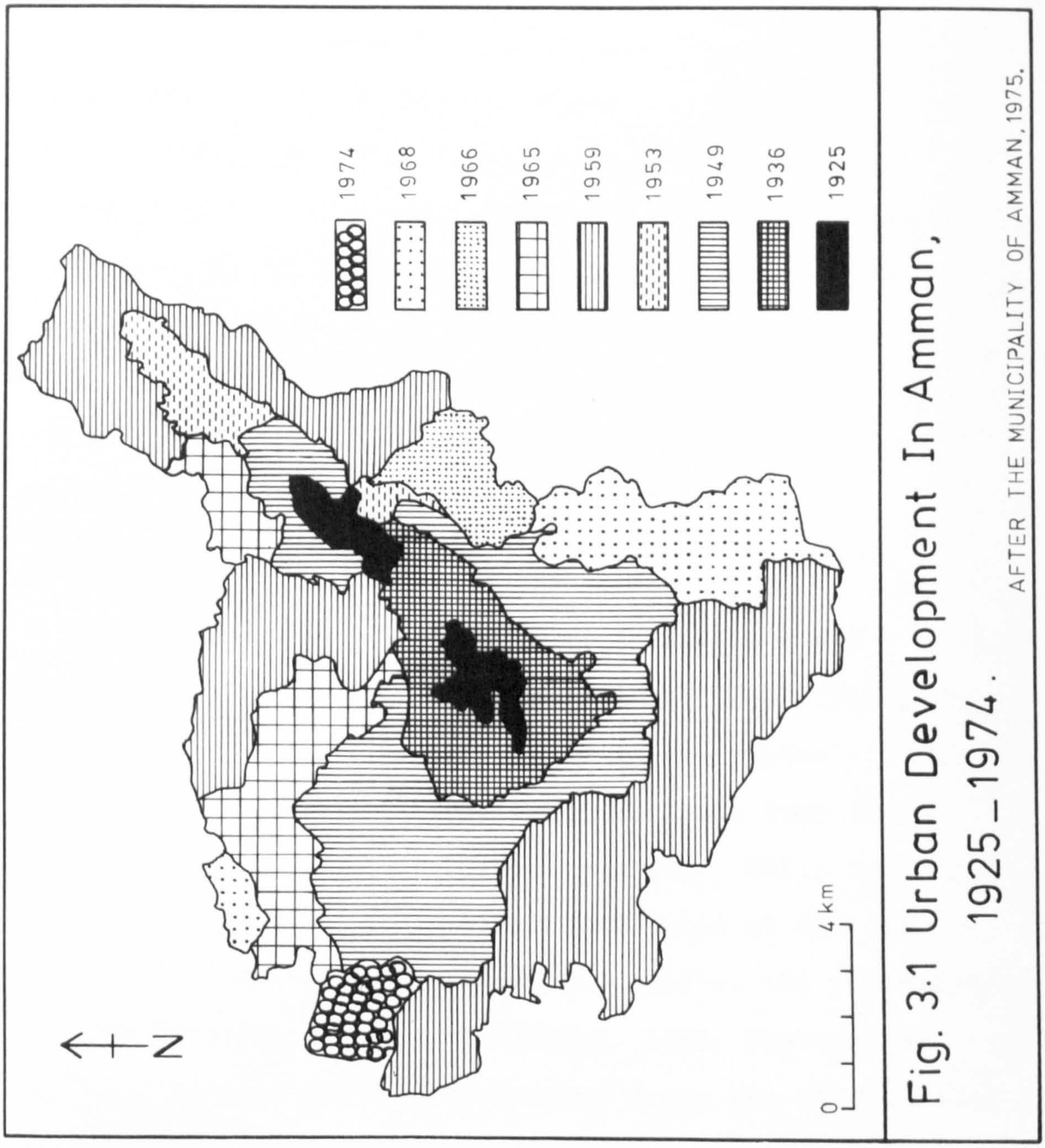

Fig. 3.1 Urban Development In Amman, 1925–1974.

AFTER THE MUNICIPALITY OF AMMAN, 1975.

II. Components of the Population Growth

The figures in Table 3.2 reveal the fact that Amman increased its population at a very high rate of growth during the period 1948 to 1976. Undoubtedly the population growth in Amman, as well as in Jordan is attributable mainly to migration. The influx of refugees in 1948 and in 1967 was the main underlying factor behind the abnormal growth of the city. On the other hand, the high rate of natural increase also contributed to this rapid growth. With respect to the two components of growth, it may be noted that the contribution of migration to the annual rate of growth was greater than that of natural increase in the warfare periods and vice-versa in the intervening periods.

Natural Increase

Data on vital statistics in Jordan as a whole and in Amman in particular, unfortunately, have been officially recognized to be deficient. Although the system of registering births and deaths started as early as 1926 in the country, it is still of doubtful quality. While the registration of births is not too bad, estimated at 80% complete in 1955 and 95% complete during the 1960's, the registration of deaths is more deficient (Wander, 1969; Thavarajah, 1970; Ma'ayta, 1975). On the other hand, among the difficulties of obtaining population data from vital statistics in Amman, is the registration system for the city which includes the registered births and deaths of the suburbs of Amman, therefore it was difficult to obtain data for the city only.

As a result of the incompleteness and unidentifiable

data on births and deaths in Amman, the author was obliged to rely on the estimated annual rate of growth for the country as a whole between 1952 and 1961, the rate estimated by the United Nations, and the rates based on the results of the National Fertility Survey in 1972 and the Household Survey in 1976. The figure of 3.3% as an average annual rate of natural increase for Amman was recommended by the D.S. in 1966, and it was employed in the 1966 social survey to calculate the population growth for the city between 1962 and 1966 (UNESOB, 1970). The justification in adopting 3.3% as a rate of natural increase in this study is determined by the fertility rate which is still high until recently. In the 1966 social survey and the 1977 survey, the Child/Woman Ratios are 753 and 733 respectively. This may be supported by the results of the 1972 N.F.S. and the 1976 Hsh.S. where fertility was found to be higher in the urban areas than in the rural areas. Only for the period 1948 to 1952 was the natural increase estimated by the International Bank for Reconstruction and Development to be 3%.

The above estimated average annual rate of population growth caused by natural increase is one of the highest in the Middle East. This may be attributed particularly to the large number of refugees who arrived in the city and characterized by a high fertility rate. The high proportion of children among refugees, as ascertained from the records of UNRWA indicates crude birth rates of more than 50 per thousand. Also in the 1972 N.F.S. fertility rates were higher in the refugee camps than elsewhere in the country.

The figures in Table 3.2 give evidence that natural

increase is a dominant factor in the stable periods 1961 to 1967 before the war and 1972 to 1976, excluding the 1953 to 1960 period when the refugees were still on the move from one place to the other. On the other hand, in 1966 it was reported that the estimates of net migration suggested that many persons leaving the countryside go directly to Amman (D.S.,196 Such a suggestion has been proved in the 1977 survey; when it was found that there was no indication of step movement among the internal migrant households to Amman. This means that other urban areas leave no scope for rural migrants to move in stages and adjust gradually to the city life. Therefore, the migrants have transferred their traditional habits to the city from areas characterized by high fertility, which in turn led to an increase in fertility rate in Amman. (see Chapter Six on Characteristics of Migrant Household).

Moreover the decline of death rates in Amman is more obvious than in other parts of the country due to the concentration of most of the health services in the capital (Darwish, 1974; AL-Tall, 1974). This can be supported by the 1972 N.F.S. when it was found that infant mortality rates were lower in urban areas than in rural areas.

Migration

The rapid population growth of Amman in the last thirty years emphasizes the significant role of migration. Clearly such a growth could only have resulted from a large scale movement of the population into Amman. The average annual rate of population growth caused by migration is obviously higher during periods of warfare, 1948 to 1952 and 1967 to 1971, than any other period, with the exception of

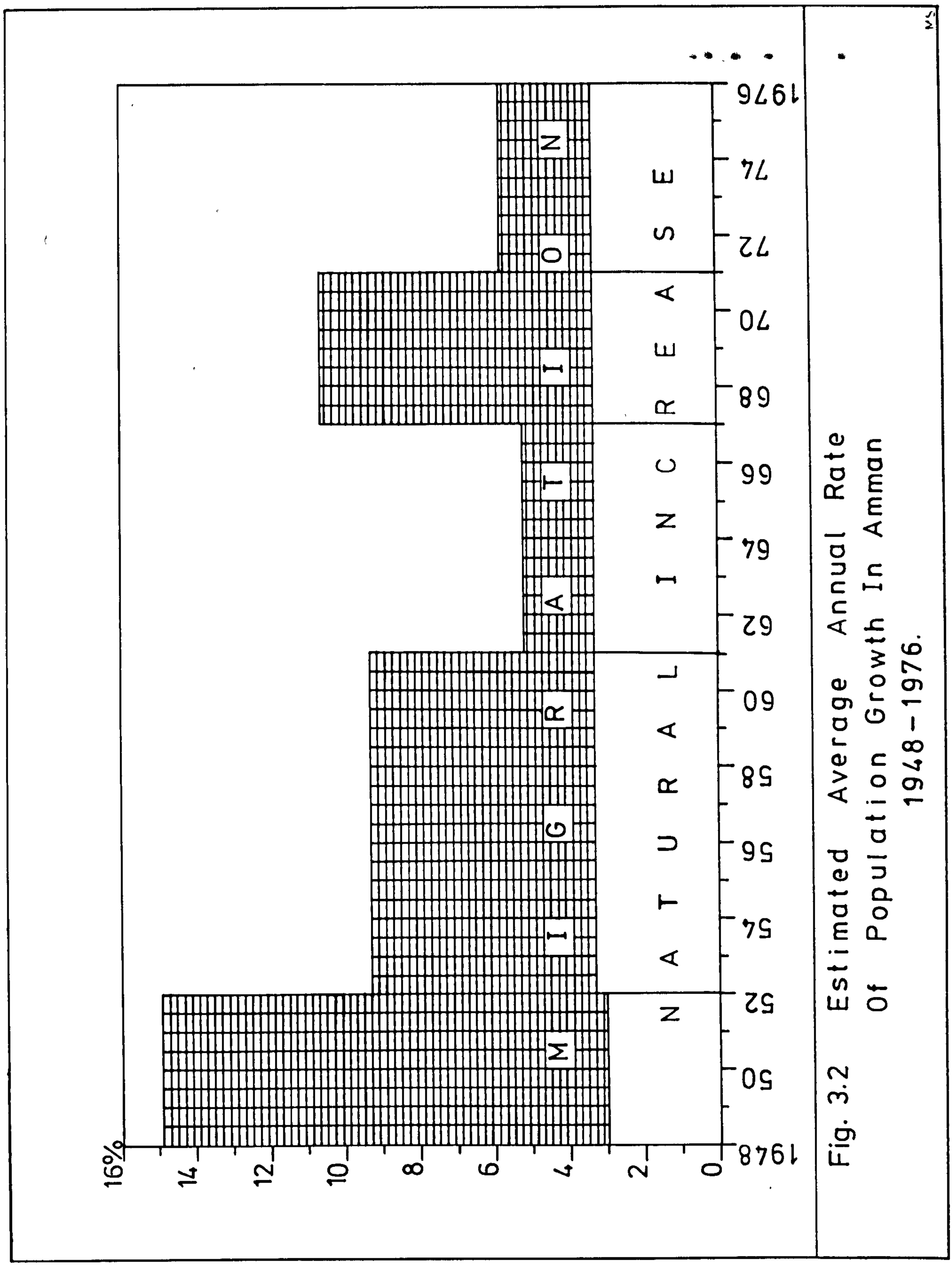

Fig. 3.2 Estimated Average Annual Rate Of Population Growth In Amman 1948–1976.

the 1953 to 1960 period (Fig. 3.2), when the city received a large number of migrants, of which a considerable number were refugees who had moved to Amman after 1952. The contribution of migration to the average annual rate of growth in the above periods, which accounted for 11.9%, 6.0%and 7.3% respectively (Table 3.2), has caused the city to double its population more than three times in less than 25 years (Fig. 3.3). However, these figures have been calculated according to the population increase in the intercensal periods, and the estimates of natural increase for the same periods. More detailed discussion on the volume of migration to Amman can be seen in Chapter Four.

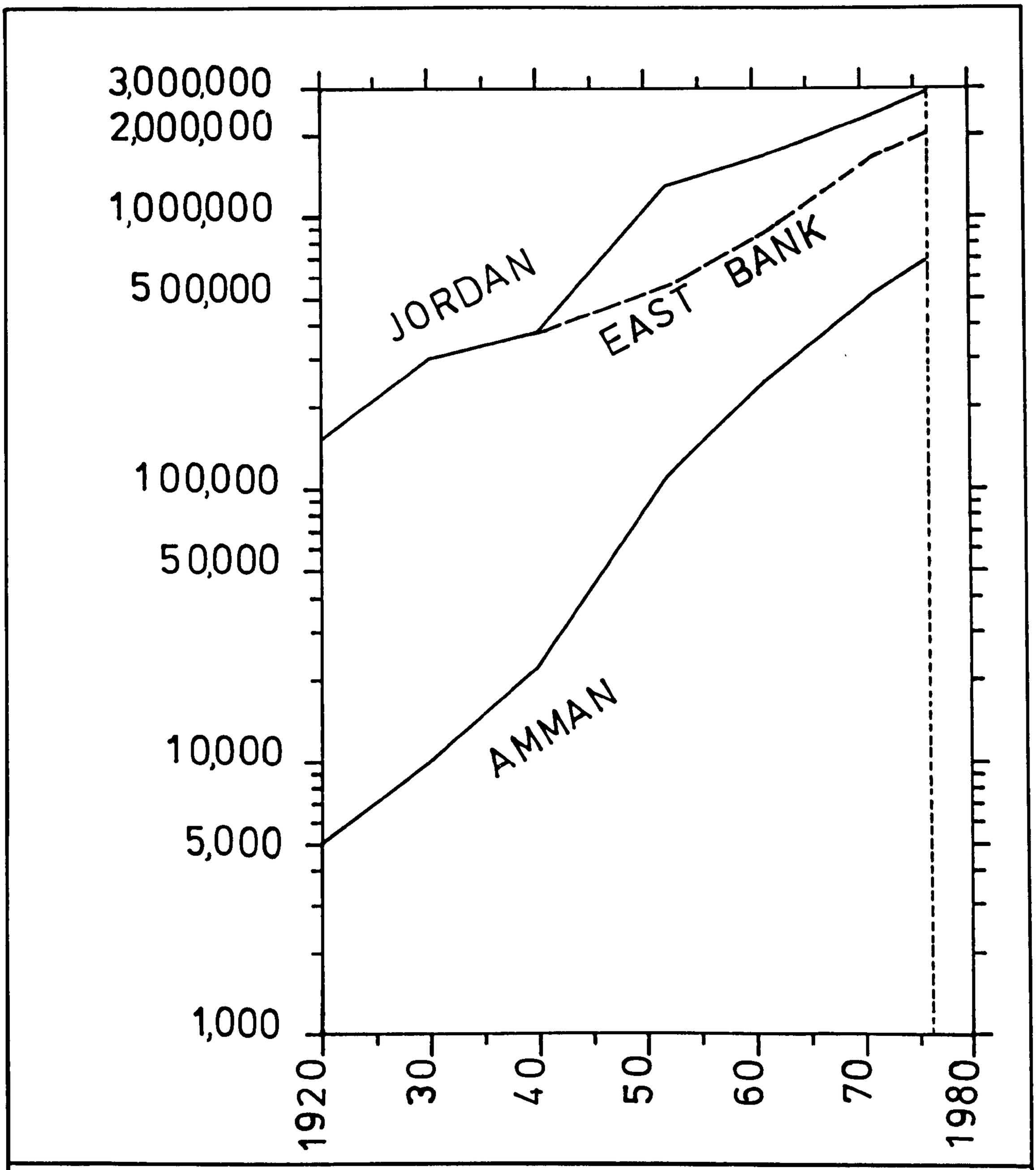

Fig.3.3 Population Growth Of Amman & Jordan 1920 - 1976.

SOURCES: TABLE 3.1 ; UN, 1976 ; ECWA, 1978.

III. An Abnormal Population Growth of Amman

Many studies have examined the role of natural increase and migration in the population growth of the Middle Eastern cities. Some studies have noted that fertility rates in cities of some countries are lower than among the rural populations, and therefore the role of migration is prevalent (Vaidyanathan, 1974), while other studies have pointed out that natural increase is largely responsible for the urban population growth more than migration (Blake, 1972). Clarke and Murray (1974) have emphasized that the role of natural increase is increasing while the role of migration is diminishing in the growth of the large cities in the Middle East, with some exceptions. In this respect, the growth of Amman comes into the latter category, not only because the contribution of migration is larger than that of natural increase, but also due to the circumstances which surrounded the population growth of Amman, as well as that of the country as a whole, since 1948. If we take into account the political events in the region since that date, then the population growth of Amman may represent an abnormal case in the Middle East.

No other city in this region has received such a double influx of refugees in so short a period. Between 1948 and 1952, the population of Amman increased by more than two-thirds as a result of the refugee movement. A similar situation occurred between the June war of 1967 and 1971, when the city received the second shock and again increased by just less than half its size. This movement caused the population of the city to increase by an average annual rate

of 14.9% for the 1948 to 1952 period, and by 10.6% for the 1967 to 1971 period. While some cities in the Gulf State and Saudi Arabia have attained an average annual rate of growth of more than 10%, unlike Amman, those cities achieved this over a 5 to 10 years period. In Kuwait city for example, the average annual rate of population growth (immigrants and natives) for the period 1957 to 1961 was 10.4% and the corresponding figure of 9.8% for the period 1961 to 1965 (Hill, 1969). Compared with Amman, Kuwait city has achieved a slower rate of growth over a similar time span. The large scale migration into Amman is characterized by a direct family movement rather than a selective movement of individuals. Migration to other cities throughout the region, particularly those of the oil countries, may be described as a family-step movement, where the head of the family migrates first and the family joins him later. Amman is somewhat different, since it has grown by whole families moving at once.

In most of the cities of the Middle East, the population growth which is caused by migration is attributable either to rural-urban migration or a combination of this and immigration of expatriates. In Amman, the population growth caused by migration was mainly due to the refugee movement, with a subsidiary rural to urban migration.

With respect to the causes of migration, there are great differences between Amman and other Middle Eastern cities which cannot be ignored. The rapid urban growth affected by the oil industry in Libya, Saudi Arabia and the Gulf States is a good example of a "pull" factor for the migrants, where

migration is closely related to economic adjustment; on the other hand, the "push" factor is more prevalent in the case of the refugee movement to Amman who have been uprooted from their homeland. In addition, there is cumulative causation, the rapid population growth of Amman caused by the refugee movement in 1948 and 1967 resulted in rapid urban development of the city which in turn increased its sphere of influence to attract migrants from other areas in the country.

Thus, Amman has witnessed very rapid population growth in the last 25 years at an exceptional rate as described by Jones (1969). Also it has undergone the most rapid growth in the Middle East, over a period since mid-century (Clarke and Murray, 1974).

Conclusion

Summarizing, Amman's population has more than trebled since 1948. In this respect the city owes its recent striking growth to a very high rate of natural increase supplemented by a massive refugee movement which has served to heighten the natural migratory movement from other parts in the country. However, the discussion of the contribution of both natural increase and migration to that rapid growth indicates that migration is a prevalent factor. Therefore more concern was given to the study of migration in this thesis.

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PART TWO

MIGRATION TO AMMAN

CHAPTER FOUR

VOLUME, ORIGINS AND FLOWS OF MIGRATION TO AMMAN

I. Volume of migration to Amman

The first part of this thesis has been concerned with the growth, distribution and movement of population in Jordan, and with the population growth of Amman. Undoubtedly, the population growth in Jordan as a whole and in Amman in particular is attributable mainly to migration. The events of 1948 and 1967, as we have seen already, resulted in huge and sudden influxes of Palestinian refugees into Jordan, of which a large number arrived in Amman. It is estimated that about 40,000 refugees arrived in Amman between 1948 and 1952, and 140,000 - 150,000 after the June War of 1967 (UNESOB, 1973; J.M.C.D.P., 1968; The Municipality of Amman, 1975; UNRWA (Quoted in Hacker, 1960)). This movement of refugees was responsible for the abnormal growth of the population of Amman and the rapid urban development which in turn attracted migrants from inside and outside the country. Therefore it is suggested here that the study of migration to Amman cannot avoid consideration of both forced and voluntary movements. This contrasts with research on migration to other cities in the region, which tends to deal with only one kind of movement, the voluntary, since this is a more common phenomenon.

Generally speaking, advanced techniques and methods of research cannot be applied easily to the study of population movement in developing countries. Colin Clarke (1974) mentions the difficulties in creating simple demographic

models for most of the cities in the developing countries. A main obstacle in such cases appears to be the lack and incompleteness of data. Amman is no exception in this respect; in fact it represents more problems than most other cities of the Third World, because most aspects of life have been influenced by the 1948 and 1967 wars. Despite these difficulties, this study will highlight the major features of migration in terms of size, place of origin, date of movement, patterns and determinants of movement and the spatial distribution of migrants in Amman. These headings will be investigated by utilizing the data collected in the 1977 sample survey, which covers retrospectively the period between 1948 and 1977.

Throughout this study the general term 'migrant household' is employed to represent any household which has arrived in Amman regardless of whether it is a refugee or not. The terms 'migrant refugee household' and 'migrant non-refugee household' are used to distinguish between the forced and voluntary movements, while the terms 'internal migrant household' and 'return migrant household' are employed to represent internal and return migration. The 'household' as a unit is used here instead of individuals, since data collected were based on the household as a unit for study.

Estimates of the Size of Migration

Although a question on place of birth in the questionnaire on internal migration was recommended by the United Nations Adviser, unfortunately it was omitted from the 1961 census (D.S., 1965). The only official document on migration in Jordan available from the D.S. is the 1967 survey of

migration, (see population data available in Jordan in Chapter 1).

From the data that were collected in 1952 by UNRWA it would appear that official estimates of refugees can be misinterpreted. Although UNRWA gives the total number of registered refugees who arrived in Amman between 1948 and 1952, many arrived and failed to register and hence were omitted from official statistics. UNRWA estimated that about 39,000 refugees arrived in the city between 1948 and 1952, of which 7,000 were living in camps (Quoted in Phillips, 1954). Hacker (1960) estimated the numbers of registered refugees who arrived in Amman during the same period at about 30,335 (as official refugees registered with UNRWA), to which she added 8,304 unofficial refugees. Nevertheless, it is well known that the 1948 to 1952 period was characterized by instability which reflects the unsettled movement of refugees as well as the numbers of arrivals into Amman. Despite this, the author is obliged to rely on the UNRWA figures adopted by Hacker and Phillips as the most reliable counts of refugees for that period.

The estimates of the refugees resulting from the June war of 1967 were more substantial, since the government made efforts toward a comprehensive count of the refugees with the co-operation of UNRWA. It was estimated that 140,000-150,000 refugees arrived in Amman as a result of the June war of 1967.

The Residual Estimates of Migration

No other records on migratory movement within Jordan

are available to disclose the numbers involved, nor are the vital statistics complete enough to assess the volume of migration by subtracting from the total population increase the balance of births over deaths. As a result, there was no choice for the author but to rely on the estimated annual rate of natural increase and to calculate the average annual rate of growth, of which he derived the average annual rate of growth caused by migration (see Chapter 3). As we have seen already, the contribution of migration to the average annual rate of population growth of Amman is higher during the warfare periods than any other period, while the contribution of natural increase is higher during the stable periods.

The figures on the size of migration, either estimated or calculated, suggest how huge the influx of migrants to Amman was and the influential role of migration on population growth. The facts relating to the volume of migration were examined against the surveys conducted in Amman. According to the pilot survey of 1958, only 31% of the sample households were living in Amman in 1947, while 53% came between 1948 and 1952, and 16% arrived between 1952 and 1958 (Hacker, 1960). In the 1966 social survey, 44% of the sample population were born outside Amman, and about 53% of those came to the city between 1956 and 1961, 13% between 1962 and 1966, the remaining 12% arrived before 1948.

The 1977 sample survey and the volume of migration

The household was considered in the 1977 sample survey as a base to examine the volume of migration rather than place of birth (see page 88). However, from data collected in 1977 on the place of birth, 44% of the total population

enumerated in the sample were born outside Amman. The same figure arrived at in the 1966 social survey.

The 1977 survey shows that out of 1,740 households enumerated 1,355 arrived in Amman between 1948 and 1977 (see Table 4.1). About 29% of the migrant households arrived between 1948 and 1952, 26% between 1953 and 1966, about 33% arrived between 1967 and 1971, and the remaining 12% arrived between 1972 and 1977. These figures support the observation that more than 60% of the migrant households entered Amman during the 1948 to 1952 and 1967 to 1971 periods, and were influenced by the effects of war. The figures also show that about one-quarter of the migrant households arrived between 1953 and 1966 which may be described as a relatively stable period, except in the early years when the "secondary refugees" were still unsettled (Hacker, 1960).

Table 4.1 Date of Arrival of the Sample Migrant Households in Amman, 1977

Date of Arrival	Number	Percentage
1948 - 1952	394	29.1
1953 - 1958	141	10.4
1959 - 1966	214	15.8
1967 - 1971	450	33.2
1972 - 1977	156	11.5
Total	1,355	100.0

Source : The 1977 Sample Survey

II. Origins and Flows of Migrant Households

The relationship between the volume of migration and the place of residence before settling in Amman was one of the important sections to be investigated in the 1977 survey. Although the previous estimates and calculations produced approximate figures of the volume of migrants, they give little or no details about their origins. Hacker (1960) was the only source to give some details on the origins of migrant household heads to Amman who arrived between 1948 and 1958, while the 1967 migration survey gave details on the origins of those who came to Amman between 1962 and 1967 from inside Jordan.

The origin of migrant households in the 1977 survey was examined against the volume and the date of arrival in Amman. The origins and volume of migrant households to the city are shown in Table 4.2. About 18% of the migrant households came from Palestine, mainly from the central part of the Coastal Plain (Lydda, Jaffa, Ramleh and the villages around), with a small proportion from north Palestine. It should be mentioned that a considerable number of households came from parts of the West Bank sub districts occupied in 1948 and were included in the West Bank sub districts in the 1977 survey, since the boundaries of these were disrupted by the Armistice line in 1948. Therefore, no wonder if we find some migrant households came from the West Bank because of the 1948 events (Table 4.2). An apparent example of the above case are the villages of Jenin, Tulkarm, Jerusalem and Hebron subdistricts, and to these one could add the households who came from that part of Jerusalem city occupied in 1948.

The West Bank as a region is the main source of the

migrant households to Amman (Fig. 4.1). The proportion of the migrant households who came from the region as a whole is 46% of the total sample migrant households in Amman in 1977. The percentages vary from 9.5% out-migrant households from Jerusalem subdistrict to 2.6% from Tulkarm subdistrict. It is apparent from the figures that the central subdistricts of Ramallah, Jericho, Jerusalem and Bethlehem have supplied Amman with more than one-quarter of the 1977 sample migrant households. Nablus and Hebron subdistricts together contributed about 14% of the migrant households in the sample.

About 22% of the sample migrant households came from the East Bank, just under half that of the West Bank figure. The highest proportions are found to be 6.8% and 3.7% for Balqa and Irbid subdistricts respectively. The combined subdistricts of Zarqa and Amman have supplied the city with 4% of the total sample migrant households, while Karak and Madaba subdistricts are represented by less than 2% each. Tafeeleh, Ma'an, Ajlun, Mafraq, Jarash, Ramtha and Aqaba subdistricts have contributed with less than 1% each. In other words, the central subdistricts of the East Bank, namely, Balqa, Amman, Zarqa and Madaba have contributed more than half of the East Bank total, while the rest were supplied by the Northern and Southern subdistricts. The households who came from the Gaza Strip form 3.6% of the total migrant households sample in Amman.

An interesting figure in Table 4.2 is that 10.7% of the migrant households came to Amman from outside Jordan with a majority of 9% coming from the Arab countries and a very small proportion of less than 2% coming from Europe and the

Americas. Half of those from Arab countries came from Kuwait, the Gulf States and Saudi Arabia. With the exception of a very small proportion, those who came from outside Jordan represent a recent trend of return migration to Amman, which will be explained later.

The above figures, if one considers the region as a whole, indicates that 67.5% of the sample migrant households came from Palestine, the Gaza Strip and the West Bank, i.e. from territories occupied in 1948 and 1967. This would seem at the outset to suggest that more than two-thirds of the sample migrant households who came to Amman were affected by the Wars of 1948 and 1967. In fact, some of these arrived in Amman during the stable periods; therefore an investigation of the date of arrival to Amman from these regions is essential for a better understanding of the time element in the process of migration.

Table 4.2 Origins of the Sample Migrant Households in Amman, 1977

Place of residence before settling in Amman	Number of migrant households		Percentage
Palestine	242		17.9
Towns & Villages Around: Jaffa	132		9.7
Lydda	51		3.8
Ramleh	33		2.4
Haifa, Acka	18		1.4
Ein Karim (village)	8		0.6
The West Bank Subdistricts	624		46.0
	Occupied 1967	Some Parts Occupied 1948	
Jerusalem	82	47	9.5
Ramallah	97	4	7.5
Jericho	100	-	7.4
Hebron	87	10	7.1
Nablus	87	-	6.4
Jenin	36	2	2.8
Bethlehem	35	2	2.7
Tulkarm	30	5	2.6
Gaza Strip	49		3.6
The East Bank Subdistricts	295		21.8
Balqa	92		6.8
Irbid	50		3.7
Zarqa	29		2.1
Amman	27		2.0
Karak	24		1.8

Table 4.2 (Continued)

Place of Residence before settling in Amman	Number of migrant households	Percentage
Madaba	20	1.5
Tafeeleh	12	0.9
Ma'an	11	0.8
Ajlun	9	0.7
Mafraq	8	0.6
Jarash	6	0.4
Ramtha	4	0.3
Aqaba	3	0.2
The Arab countries	122	9.0
Kuwait & Gulf States	41	3.0
Saudi Arabia	20	1.5
Syria	19	1.4
Lebanon	15	1.1
Iraq	11	0.8
Egypt	9	0.7
Libya	7	0.5
Europe	13	1.0
The Americas	10	0.7
Total	1355	100.0

Source : The 1977 Sample Survey

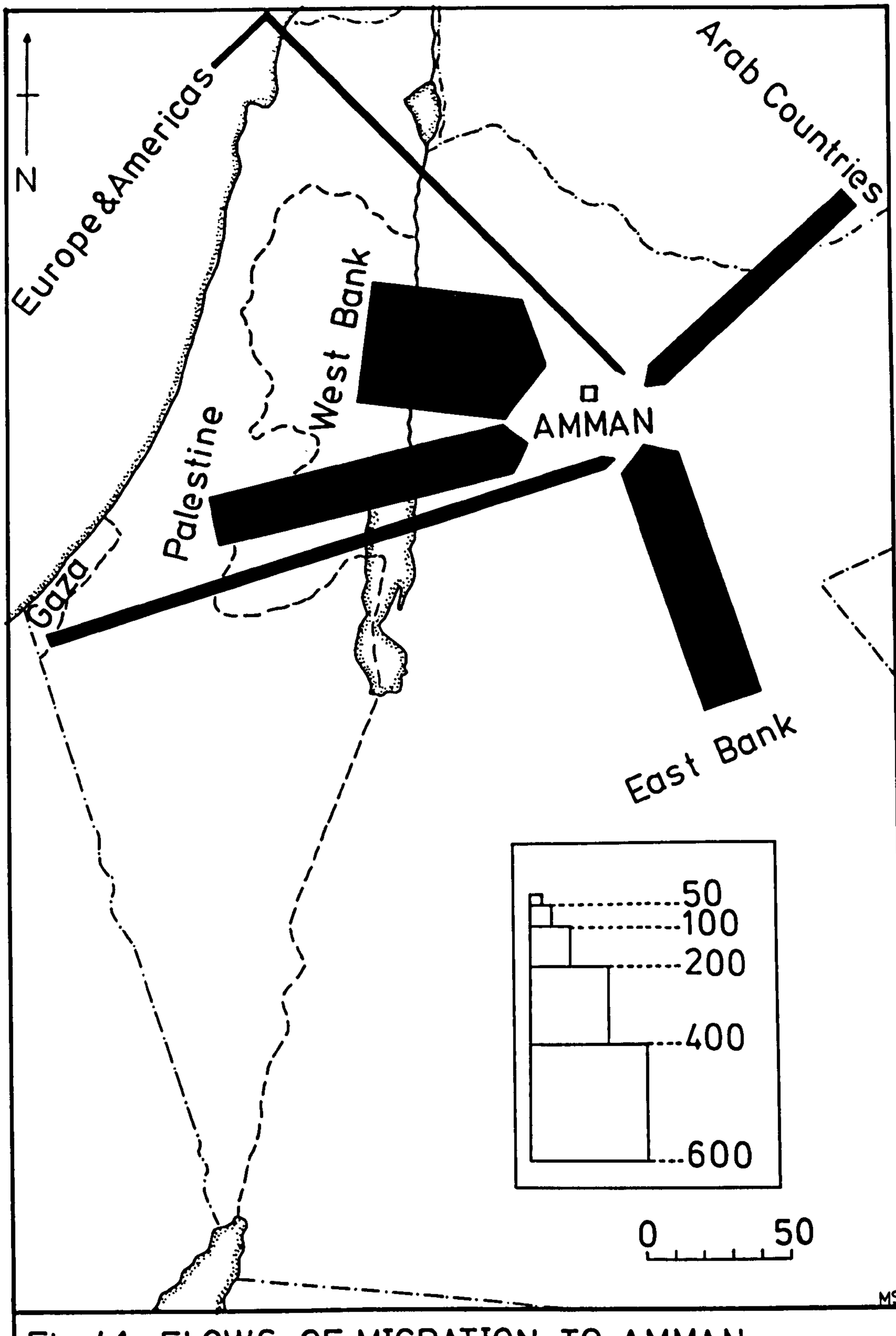

Fig. 4.1 FLOWS OF MIGRATION TO AMMAN.

Origins of 1,355 Migrant Households in 1,740 Sample Households in Amman, 1977.

III. Origins of Migrant Households and Date of Arrival in Amman

The place of residence of the sample migrant households before settling in Amman and the date of their arrival is represented in Table 4.3. The figures reveal that the areas affected by events of war have supplied the city with only 52% of the total migrant households during the 1948 to 1952 and 1967 to 1971 periods, while about 15% of the migrant households came to the city from these areas during the stable periods, i.e. 1953 to 1966 and 1972 to 1977. This indicates that some of these areas have practised a sort of voluntary movement which was restricted in this case to the West Bank. Also it should be noted that some migrant households had arrived during the 1948 to 1952 period from the West Bank because of reasons other than war.

On the other side of the River Jordan the East Bank, although affected by the war events but not by occupation*, has had a normal outward migration to Amman with a slow increase throughout the different periods from 1948 to 1977. Although the volume of migration from the East Bank is about half that of the West Bank, it is still smaller in the former during the stable periods 1953 to 1966. This means that the West Bank migrant households have been attracted to Amman more than their East Bank counterparts in time of peace and war (except during the latest period of 1972 to 1977 when

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* There was continuous Israeli aggression on the Eastern Jordan Valley after the 1967 war, which resulted in another influx of about 150,000 refugees from their camps towards the Eastern upland, particularly from AL-Karameh camp (established 1948) which was completely destructed by the Israelis in March 1968 (for more detail see Harris, 1978, 112).

Table 4.3 Date of Arrival of the Sample Migrant Households in Amman, and their Previous Residence by Region

Date of Arrival	Palestine	West Bank	Gaza Strip	East Bank	Arab Countries	Americas & Europe	Total
1948-1952	239	111	2	36	6	-	394
1953-1958	3	71	1	61	4	1	141
1959-1966	-	113	1	75	23	2	214
1967-1971	-	304	44	81	21	-	450
1972-1977	-	25	1	42	68.	20	156
Total	242	624	49	295	122	23	1355

Source : The 1977 Sample Survey

the West Bank is still under the occupation).

Table 4.3 draws attention to the figures relating immigration to Amman from areas outside Jordan. In the early periods of 1948 to 1958, a very small number of 1977 sample migrant households came from the Arab countries. The number increased slightly in the 1959 to 1966 and 1967 to 1971 periods due to immigration and return migration. The most interesting figure in the table is that showing some 44% of those who arrived in Amman during the 1972 to 1977 period were from the Arab countries mainly from Kuwait and the Gulf States, the majority being returning Jordanians. About the same number during the same period came from the West Bank and the East Bank together, while the sample migrant households from the Americas and Europe formed about 12% of the total, again a majority of returning Jordanians.

Conclusion

The previous discussion on volume, place of residence and date of movement of the sample migrant households in Amman may help to identify the general trends of migration to the city. No doubt that the volume of migration into Amman, either estimated, calculated or covered by sample, was huge in the period 1948 to 1977. Investigation on the relation between volume, origin and date of movement indicates that Amman has attracted migrant households from all over the country during times of war and peace. In this respect the West Bank may be described as the 'backbone' of the migratory movement to Amman, since it supplied the city with 46% of the total sample migrant households in 1977.

Furthermore, the development of a recent trend of return migration and immigration to the city seems to imply that the influence of Amman has spread to attract migrants from outside the country.

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CHAPTER FIVE

PATTERNS AND DETERMINANTS OF MIGRATORY MOVEMENT TO AMMAN

I. Typology of Migration to Amman

The mobility of the population to Amman is a product of a variety of patterns. The migration process to the city can be divided into three totally different categories : first, forced migration resulting from the 1948 Palestine Tragedy, and the occupation of the West Bank of Jordan in 1967 under circumstances whereby the refugees had no time to calculate all the positive and negative aspects of the journey and place of destination; secondly, voluntary internal migration as a result of the push-pull factors, not much different from rural to urban migration found elsewhere in the Middle East; thirdly, the recent trend of return migration and immigration from outside Jordan.

Throughout these broad patterns, there are distinctive features. Migration to Amman is characterized by a family movement rather than selective persons (Kawabe, 1973). Although this is a common feature of population mobility in the Middle East, it is well manifested in the case of Amman for both forced and voluntary movements. The general feature of migration throughout the world that is under condition of voluntary movement, it is particularly the younger generation who migrate, while the older people stay behind. Under conditions of forced movement, often complete households migrate. This was the case of 1948 refugees to Amman, while the 1967 war has inevitably led to a breaking up of some households. That happened because some people

were working in the East Bank or outside Jordan when the war broke out, and there was no choice for them to join their families in the occupied territory.

Although step-wise movement is uncommon in total migration to the city, it does have some significance if we consider refugee movements alone, particularly of 1948.

Another characteristic of migration to Amman is sudden movement, especially with regard to the 1967 exodus from the West Bank.

The above mentioned patterns of movement can be discussed in terms of the nature of each pattern, its contribution to the whole movement, its characteristics and its determinants. For this purpose, a simple classification of the whole movement to Amman has been constructed to assist explanation of each pattern (see Fig. 5.1). It may be necessary to mention that data utilized in this study refer to the 1977 sample survey, the official statistics and other studies.

Figure 5.1 Typology of Migration to Amman

Class of Migration	Type of Movement	Migratory Forces	Conditions of Area of Origin	Volume of Movement	Migratory Stages	Direct Causes of Movement	Urban-Rural Background
Forced	Refugee Once Double	-War -Conflict -Occupation -Aggression	Under Occupation or Affected by Aggression	Very Large	-Direct -Via Other Parts in the Country -Via Neighbouring Countries	-War -Displacement -Destruction of Homes -Psychological Pressures	Majority Urban
Voluntary	Internal Migration	-Relocation of Economic Activities -Population Concentration	Stable	Large	Direct	-Job Transfer -Better Job Opportunities -Looking for Job	Majority Urban
	Return Migration and Immigration	Recent Economic Developments	Stable	Small	Direct	-Family Relations -Better Job and Investment Opportunities	Almost All Urban

II. The Refugees

According to the 1977 sample survey, 703 households out of 1,355 migrant households were of refugee origin, about 52% of the total migratory movement, or 40% of the total household sample. The relationship between the origins of refugees and the political events in the Middle East is shown in Fig. 5.2a. The 1948 occupation of Palestine resulted in a mass movement of refugees to Amman. Their proportion to the total refugees in the city in 1977 was 48%. On the other hand, the 1967 occupation of the West Bank and the Gaza Strip, and the Israeli aggression on the East Bank after that war resulted in another influx of refugees. They formed 51% of the refugees in Amman in 1977. The civil war in Lebanon, which began in 1975, has also made a minor contribution to the refugee movement (1%).

It may be noted that about 23% of the refugee movement represent the 'double refugees'. This may be regarded as the effect of war on the refugee who stays always on the move. However, the 1967 war also had a great effect on native West Bank people, the number of new refugees exceeding those who sought refuge for a second time (double refugees).

With respect to the step movement among the refugees, it seems that the majority came directly to Amman, while a small proportion (about 14%) arrived by steps, most of these being 1948 refugees. The remaining 86%, who came directly, are divided as follows : 35% from Palestine, about 26% from the West Bank, 23% 'double refugees' from the Gaza Strip, the West Bank and the East Bank, 1% from Lebanon and less

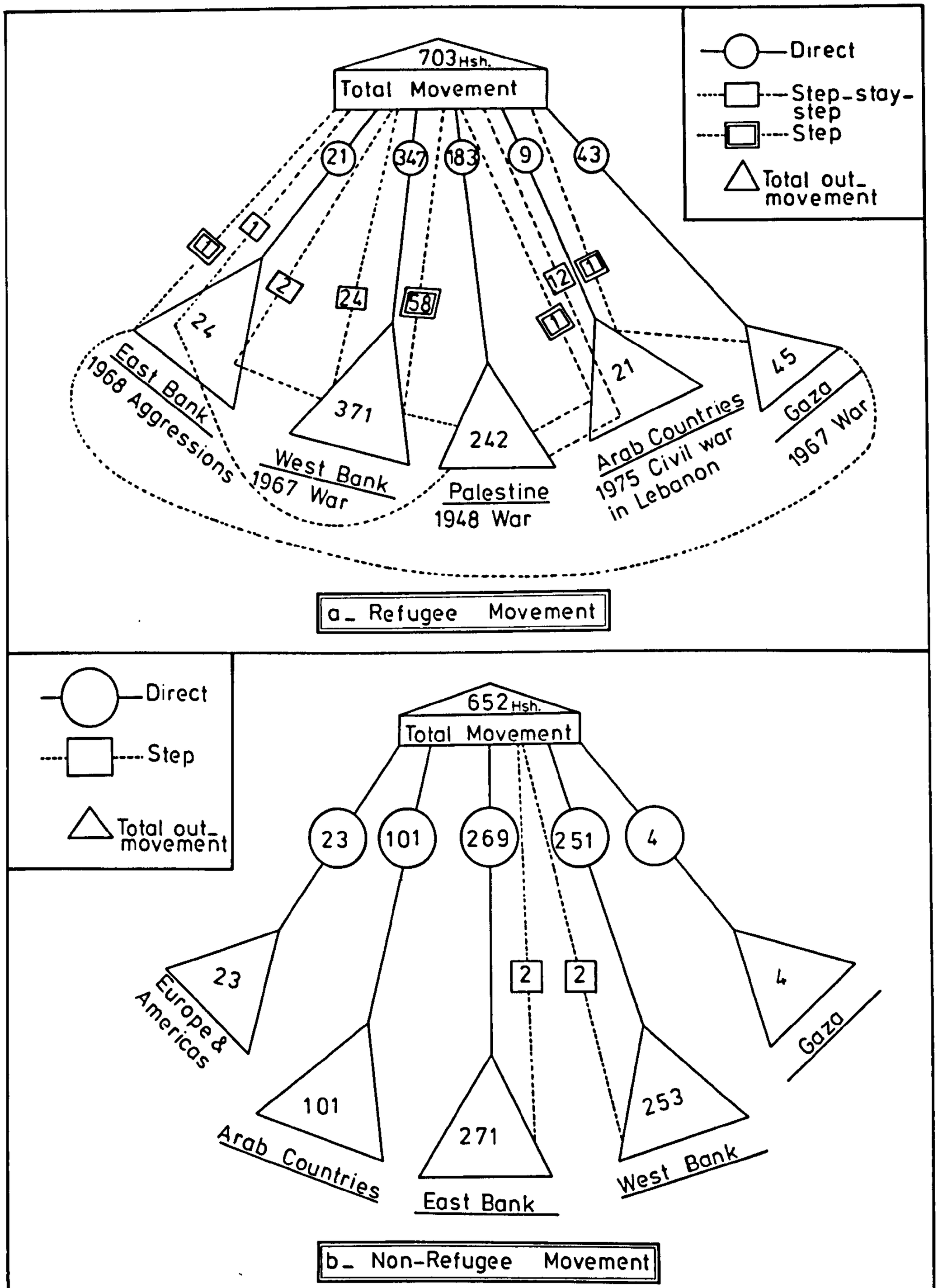

Fig. 5.2 The 1977 Sample Movement To Amman, 1948_1977.

than that figure from the East Bank.

Within the direct refugee movement to Amman, those who arrived after 1967 outnumbered those who arrived after 1948, being 60% of the total direct refugee movement.

The above situation of direct and stepped refugee movement is interesting from a geographical perspective. First, after 1948, most refugees stayed in West Bank emergency camps, thinking that the overall situation would be resolved after a short period and that they would be able to return to their home land. The 1952 refugee camp distribution is shown in Fig. 5.3, with a heavy concentration in the West Bank. Therefore the constraining effect of distance in this case has its implications for the movement. After 1950 no improvement was apparent in the political situation, and the refugees were not allowed to return home, so some started to move to other towns and cities like Amman. This situation repeated itself after the 1967 war when most of the refugees were sheltered in camps on the eastern Jordan Valley, but this time the refugees were forced to move to the eastern upland after less than a year. This resulted from the Israeli aggression on the East Bank and after the complete destruction of the largest Valley camp (AL-Karameh). In fact, to avoid urban problems, the government of Jordan decided immediately after the June war not to bring more refugees into the capital or other large towns, but following the aggression in March 1968 there was no choice.

Secondly, as mentioned above, in terms of population distribution, a large number of 1948 refugees were living in the West Bank. In this respect the towns of the West Bank

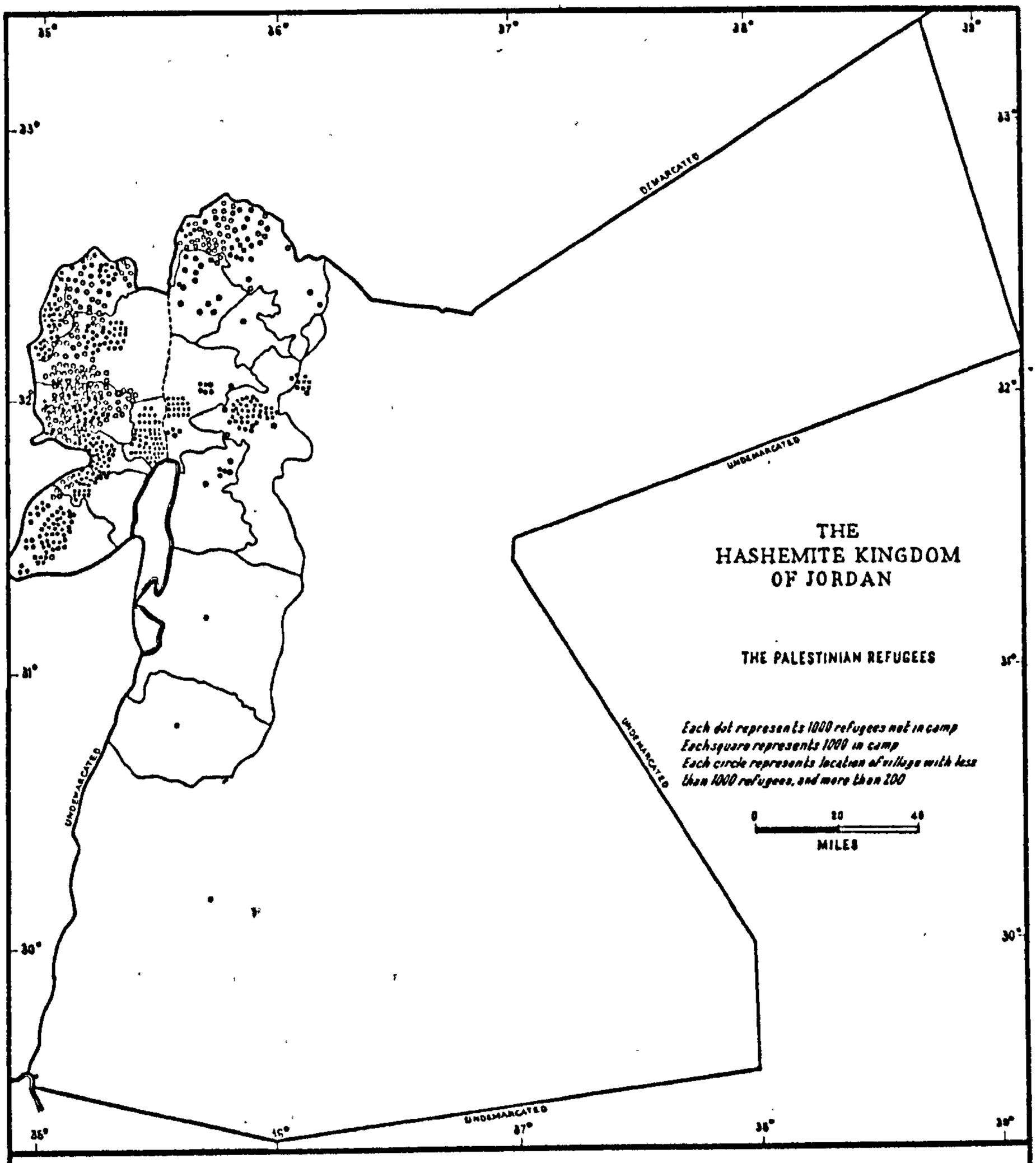

Fig. 5.3 The Distribution of the Palestinian Refugees in Jordan, 1952. After P. Phillips, The Hashemite Kingdom of Jordan : Prolegomena To a Technical Assistant Program. Chicago, 1954.

absorbed more of these refugees than their counterparts on the East Bank. This may explain why Amman has received much larger numbers of refugees after the 1967 war than after 1948. It may be demonstrated that the city size distribution in the early 1950's was responsible for reducing pressure on Amman, quite contrary to the situation in the late 1960's (see Figs. 2.5,2.6,2.7). Phillips (1954) noted that three-quarters of the 1948 refugees did not live in camps, but in villages and towns. In this respect Hebron has the largest number with 37,000; Amman 32,000; Nablus and Jerusalem about 20,000 each; Jenin and Qalqilia about 13,000 and 10,000 respectively. Except for Amman, all of these towns are located in the West Bank.

Thirdly, it may be necessary here to mention that after 30 years of shelter in Jordan the Palestinian refugee movement may be considered as different from other refugee movements, in terms of both volume and absence of resettlement. At one time (in the late 1960's) they accounted for one-third of the World's total refugee population, when about half of the refugees elsewhere in the World had been resettled (David, 1969). Further, there is a distinction between 'International' refugees and those who have been displaced within the borders of their own countries. Both definitions are applicable in the case of refugee movement in Jordan. In fact, the repetition of the 1948 Tragedy in 1967 has greatly added to difficulties in both the political and human aspects of the refugee problem in Jordan and in other host countries. However, the human aspects are the main concern of this study.

According to the J.M.C.D.P reports of 1968, 1969, 1975

and 1976, the total number of refugees and displaced persons as a result of the 1967 war is 344,000, (see Appendix IV), of whom 150,000 are double refugees from the Gaza Strip, the West Bank and the eastern Jordan Valley, and 194,000 are displaced persons from the West Bank and the Gaza Strip, i.e. refugees for the first time from these areas. Out of the total number of 1967 double refugees and displaced persons, 189,223 were by 1968 living in the towns and cities of the East Bank as follows :

Amman	128,729	Zarqa	32,644
Irbid	10,448	Salt	13,729
Madaba	3,673		

Source : J.M.C.D.P., 1968

The refugee movement of 1967 is different from that of 1948 because it took place instantaneously. In this case of sudden forced movement the refugees tended to move into the cities where job opportunities were more available than elsewhere. It may be demonstrated that the larger the city size the greater the arrival of refugees, and that after 1967 more than two-thirds of those who arrived in the East Bank towns moved to Amman. In contrast, after 1948 Amman received less than a quarter of the total number who arrived in the towns of the East and West Banks.

Despite the interrelated situation of refugees, either of 1948 or of 1967 (see Appendix IV), the 1977 survey has made detailed examination possible of all aspects of the movement. As we have seen, stepped refugee movement took place in both 1948 and 1967, but it was larger in the former than in the latter in terms of numbers and place of first step

of the movement. Out of a 100 migrant refugee households arriving in Amman by stages, only 9 were 1967 refugees who arrived via other places in the country. The remaining 91 were 1948 refugees. Most arrived via other places in Jordan and about 10% arrived via neighbouring Arab countries (Table 5.1).

The refugee urban-rural background was also examined in the 1977 sample. With regard to the total refugee movement, 70% came from urban areas, but the percentages vary in time and areal units, and even as far as step and direct movements are concerned. About 72% of the 1948 migrant refugee households from Palestine were from urban areas, and a quarter of these arrived by steps. Out of the remaining rural migrant refugee households a quarter also arrived by steps. The migrant refugee households from the Gaza Strip comprise a higher percentage of urban refugees than those of the West Bank and Palestine (84%), and about 8% of these arrived by steps, while the rural migrant refugee households (16%), all arrived direct to Amman.

A different situation prevailed for the migrant refugee households from the West Bank. After 1948 about 35% of the West Bank migrant refugee households came from rural areas, but only 29% after 1967. The latter figure could be a misleading one, since this refugee movement from the West Bank includes the double refugees. If we exclude them, we will find that 36% of these were from rural areas, i.e. slightly higher than the figure for 1948, as a high percentage of the double refugees from the West Bank are from urban areas (85%). Both urban and rural migrant double refugee households came

to Amman directly, while among the rural and urban West Bank migrant refugee households, of 1948 and 1967, 11% and 5% respectively arrived by steps via other places in Jordan. Migrant refugee households from the East Bank are mostly from rural areas, a small proportion of these arrived by steps, and only 8% from urban areas, all direct.

The highest percentage of urban refugees is found among those who came either by steps via Arab countries or as Arab refugees. Only 9% were from rural areas, all Arab refugees, and these also came directly to Amman, while the remaining figure represents step-urban refugees via Arab countries, 63%, and direct urban Arab refugees, 28%. The high proportion of urban refugees to Amman may be explained by considering two points.

First, according to the 1961 census definition of urban and rural modes of living, many refugee camps of 1948 were considered as rural. It is thought that some of these camps may be inapplicable to the definition, particularly those of Jericho, since all these camps were very close to the towns and more than three-quarters of these camp refugees were engaged in occupations other than agriculture. Also it may be reasonable to say that the boundaries of the urban areas have expanded beyond those of 1961 and have captured the camps, for example AL-Amāri camp in Ramallah and camps adjacent to Jericho. On the other hand some refugee camps entirely coincide with the 1961 definition, like AL-Ároub near Hebron, Jalazon near Ramallah, and AL-Karameh in the eastern Jordan Valley, which is near no other town.

Secondly, the rural migrant refugee households who came to the

Table 5.1 Migratory Movement to Amman, Direct and Steps, Refugee and Non-Refugee Households, 1948-1977

Place of Previous Residence	Direct Refugee		Direct Non-Refugee		Direct Return	Direct Arab		Direct Non-Arab	Steps Refugee Via Jordan		Refugee Via Arab Countries	Steps Non-Refugee Via Jordan		Total		Grand Total
	U	R	U	R	U	U	R	U	U	R	U	U	R	U	R	
Palestine	132	51	-	-	-	-	-	-	40	18	1	-	-	173	69	242
Gaza Strip	34	9	4	-	-	-	-	-	1	-	1	-	-	40	9	49
Arab Countries	7	2	-	-	80	20	1	-	-	-	12	-	-	119	3	122
Europe & Americas	-	-	-	-	20	-	-	3	-	-	-	-	-	23	-	23
West Bank	248	99	173	78	-	-	-	-	14	10	-	2	-	437	187	624
East Bank	-	21	170	99	-	-	-	-	2	1	-	-	2	172	123	295
Total	421	182	347	177	100	20	1	3	57	29	14	2	2	964	391	1355
Grand Total	603		524		100	21		3	86		14	4		1355		

* U = Urban R = Rural

Source : The 1977 Sample Survey

East Bank after 1948 and after 1967 are living mainly in camps located outside the towns and cities. This may explain the low percentage of rural migrant refugee households in Amman. Unfortunately, no figures are available on the urban-rural background of the refugees in camps whether located inside or outside towns and cities, but two surveys conducted in two refugee camps outside the towns of the East Bank, the first after the 1967 war directly, and the second in 1976, revealed that the refugee camps outside towns comprised refugees of mainly rural origin (Dodd and Barakat, 1968; Harris, 1978). This may give evidence on the high proportion of urban migrant refugee households to Amman, and may also demonstrate that the refugees of urban origin prefer to move to urban places in contrast to rural refugees.

The Determinants of the Refugee Movement

The refugees in Amman are an uprooted community, but the discussion of the historical and political developments of the Palestinian Question is beyond the scope of this study. The reality of this problem is well known, and the real sufferers under these circumstances have been the refugees (Rowley, 1977).

The refugee movement to Amman may be classified under the "acute refugee movements" as defined by Kunz (1973), who in his 'Kinetic Models and Forms of Displacement' described the movements as arising from large political changes or military movements. He also argued that the push motive is overwhelming in these movements.

The motives behind the refugee movement to Amman can be

analysed, for further understanding, from socio-psychological, political and geographical points of view. The author will exclude the political view points and will concentrate on the others, particularly the geographical. Little work has been done in this field, and the following analysis of the determinants is based on recent surveys conducted by Dodd and Barakat in 1967, Harris in 1976 and the author in 1977.

The Socio-Psychological Interpretation

Dodd and Barakat have pointed out that there are direct and indirect causes of the 1967 exodus. The direct causes, i.e. those connected with the events and circumstances of the war, can be summarized as follows : fear of such events as airplane attack, including the extensive use of napalm, psychological pressures and threats of Israeli occupation, destruction of homes and villages and economic pressures arising from the occupation. In addition, there are indirect causes represented by the element of surprise, the lack of social and political organization or lack of other than family loyalties, and flight to protect the honour of the families.

To these socio-psychological motives, one may add the previous experience of the double refugees who fled for the second time. The 1948 events left deep psychological effects on the refugees, such as the Deir Yassin Massacre when 350 people "had been deliberately massacred in cold blood for, as I observed for myself, this gang (The Irgon) was admirably disciplined and only acted under orders .... Driven by fear the Arabs left their homes to find shelter among their Kindred", (Reynier, 1948). The same situation was repeated

in 1967 when the border villages of Umwas, Yalu and Beit Nuba were completely destroyed by the Israelis on June 13th (Harris, 1978, 63).

The Geographical Points of View

War and displacement are considered by many geographers as a determinant of forced migration. In the case of refugee movement to Amman, it may be generalized that the above motives of the whole refugee movement are represented by the push factor, i.e. force and eviction of the people. As mentioned earlier, the refugee movement to Amman after 1967 was more intensive than that of 1948. The geographical factor here may be considered among the most important in terms of the place of destination (see page 109), and in terms of the effects of the spatial relationship between the population distribution in the host country, Jordan, and the refugee movement in both 1948 and 1967.

Many geographical studies indicated that there are differences between the two areas East and West of the River Jordan, in terms of natural resources, economic and population geography (Naval Intelligence Division, 1943; Phillips, 1954; Patai, 1958). In this respect the war and displacement as a factor for the refugee movement manifested itself rather than the geographical differences. To explain that, the refugees before they become so, were living in their homeland of fertile soil, adequate water resources, urbanized life and better economic conditions. No doubt that the effect of urbanization brought by the British throughout the Mandate was greater than elsewhere in the region. Don Peretz (1958, 153) tells us that "the property abandoned by the Palestinians was a valuable

resource helping to make room for 700,000 new immigrants of Jews who came to Israel between May 1948 and the end of 1951". This situation was repeated in 1967 and many new settlements were established on the Arab land of the West Bank (Harris, 1978; Quiring, 1978).

Under the limited natural resources and the hard economic conditions of the East Bank, particularly after the loss of the West Bank in 1967, (which was described by Birks and Sinclair (1978,1) as "a profound setback to the economy"), the movement of refugees from Palestine and the West Bank to the East Bank cannot be attributed to an economic factor in migration. Therefore the reason for flight among the refugee movement is a question of politics and it is not the responsibility of geography.

To avoid such a complex of inter-related factors the author employed the term 'war and displacement' as a factor behind the forced refugee movement, and the other common factors in migration research as socio-economic factors. It should be noted that some of those counted as refugees came to Amman (a very small proportion) because of reasons other than war and displacement, and thus a further classification has been made to recognize voluntary and forced movements (Table 5.2).

About 52% of the total 1,355 migrant households in the sample were refugees. Out of these 96% came to Amman because of war and displacement, while the remaining 4% came for other reasons. This means that the forced migrant refugee households represent 50% of the total migrant households sample, and the voluntary migrant refugee households count for only 2% of the

Table 5.2 Voluntary, Forced Migration to Amman by Place of Residence and Urban-Rural Background

Place of Residence Before Amman	Voluntary Movement		Forced Movement		Total		Grand Total
	Urban	Rural	Urban	Rural	Urban	Rural	
Palestine	2	1	171	68	173	69	242
Gaza	6	-	34	9	40	9	49
Arab Countries	112	1	7	2	119	3	122
Europe & Americas	23	-	-	-	23	-	23
The West Bank	180	78	257	109	437	187	624
The East Bank	172	102	-	21	172	123	295
Total	495	182	469	209	964	391	1355
GRAND TOTAL	677		678		1355		

Source : The 1977 Sample Survey

same total. The latter mainly came via other Arab countries after staying there for a few years, and almost all came because of family relations (Table 5.3).

The total sample number of the forced movement to Amman was 678 households (see Fig. 5.4). About 54% came from the West Bank (including double refugee migrant households who account for 39% of the West Bank total), 36% from Palestine, 6% from the Gaza Strip, 3% from the East Bank, mostly double refugees, and about 1% as Arab refugees from Lebanon. The above figures suggest that the areas under occupation have contributed more than 95% of the total forced movement to Amman, which in turn implies the role of war, displacement, and occupation on that type of movement (Fig. 5.5). Also the East Bank, which was affected by aggression, has contributed to the same movement.

Among the sample forced movement there were 16 migrant refugee households who came to Amman after the 1967 war, not because of the war itself, but due to expulsion by the occupation authorities. Two-thirds of these were from the West Bank and the rest from the Gaza Strip. The extension of the effect of the occupation on the inhabitants of these areas was described by the UNRWA Commissioner General in his report (1971/1972, 7), when he stated that "In Gaza, the year under report opened with what was described as major security operations by the Israeli Army, including the destruction at short notice of 7,729 rooms in Beach, Jabalia and Rafah camps, and the displacement of 15,855 persons".

In 1960 Hacker noted that 53% of the total migrant heads

Table 5.3 Determinants of Migration to Amman and Urban-Rural Origins of 1355 Migrant Household Sample

Place of Residence Before Amman	Looking for a Job		Better Job Opportunities		Job Transfer		Family Relations		Displacement after 1967 War		War		Military Services		Not Stated		Total		Grand Total
	U	R	U	R	U	R	U	R	U	R	U	R	U	R	U	R	U	R	
Palestine	1	-	-	1	-	-	1	-	-	-	171	68	-	-	-	-	173	69	242
Gaza	-	-	-	-	-	-	6	-	3	2	31	7	-	-	-	-	40	9	49
Arab Countries	3	-	48	-	17	-	33	1	1	-	6	2	-	-	11	-	119	3	122
Europe & Americas	1	-	4	-	5	-	9	-	-	-	-	-	-	-	4	-	23	-	23
The West Bank	43	23	67	30	37	12	21	6	8	3	249	106	6	3	6	4	437	187	624
The East Bank	21	26	43	21	79	35	9	3	-	-	-	21	11	15	9	2	172	123	295
Total	69	49	162	52	138	47	79	10	12	5	457	204	17	18	30	6	964	391	1355
Grand Total	118		214		185		89		17		661		35		36		1355		

Source : The 1977 Sample Survey

U = Urban R = Rural

of households sample, who arrived in Amman between 1948 and 1958, were displaced persons, i.e. forced refugees. In the 1977 sample survey, 50% of the migrant households, who arrived between 1948 and 1977 were forced migrant refugee households. Such a correspondence suggests that war and displacement is an overwhelming factor in the refugee movement to Amman (Fig. 5.6).

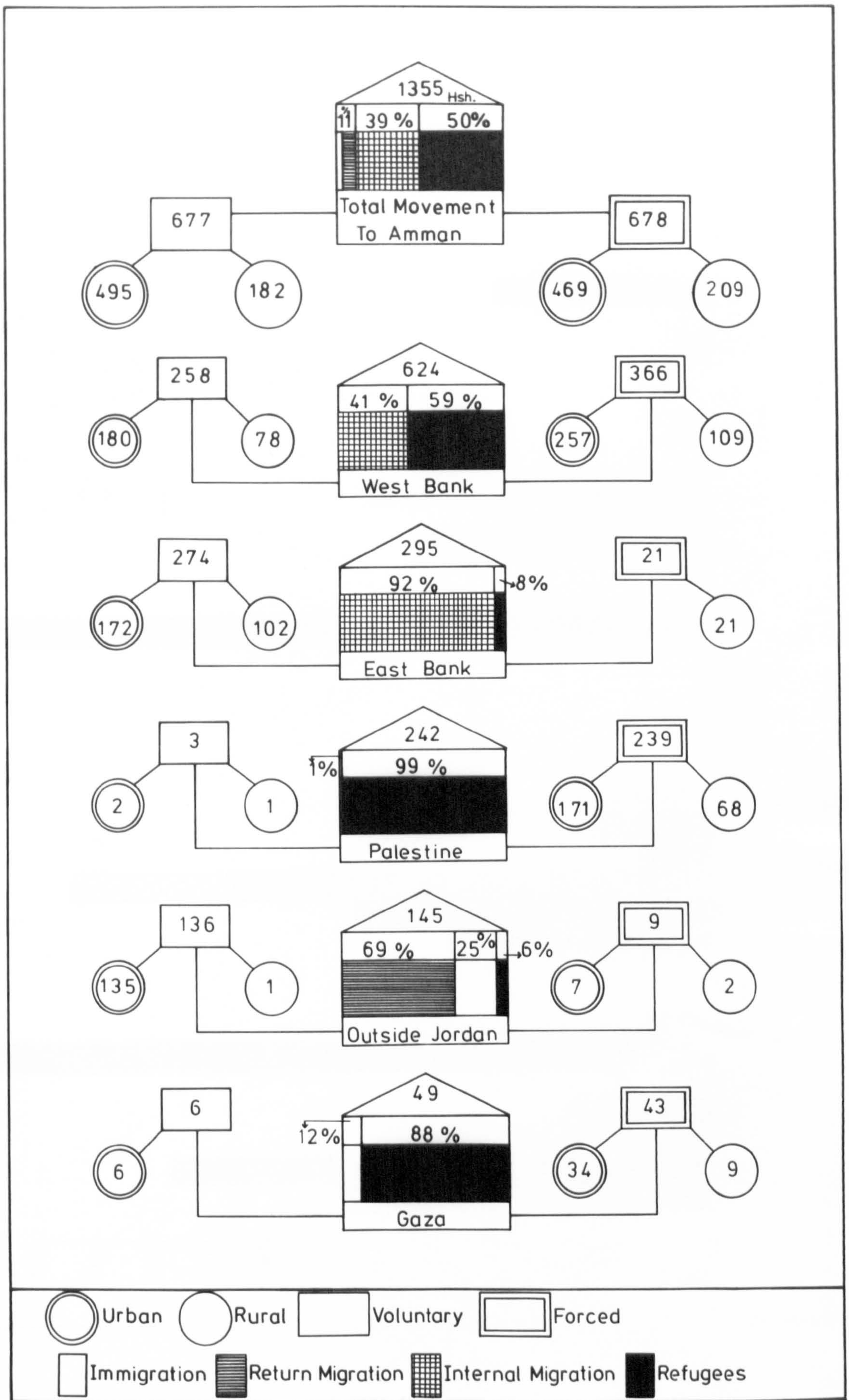

Fig. 5.4 Patterns Of Migration To Amman*.

*1977 Survey

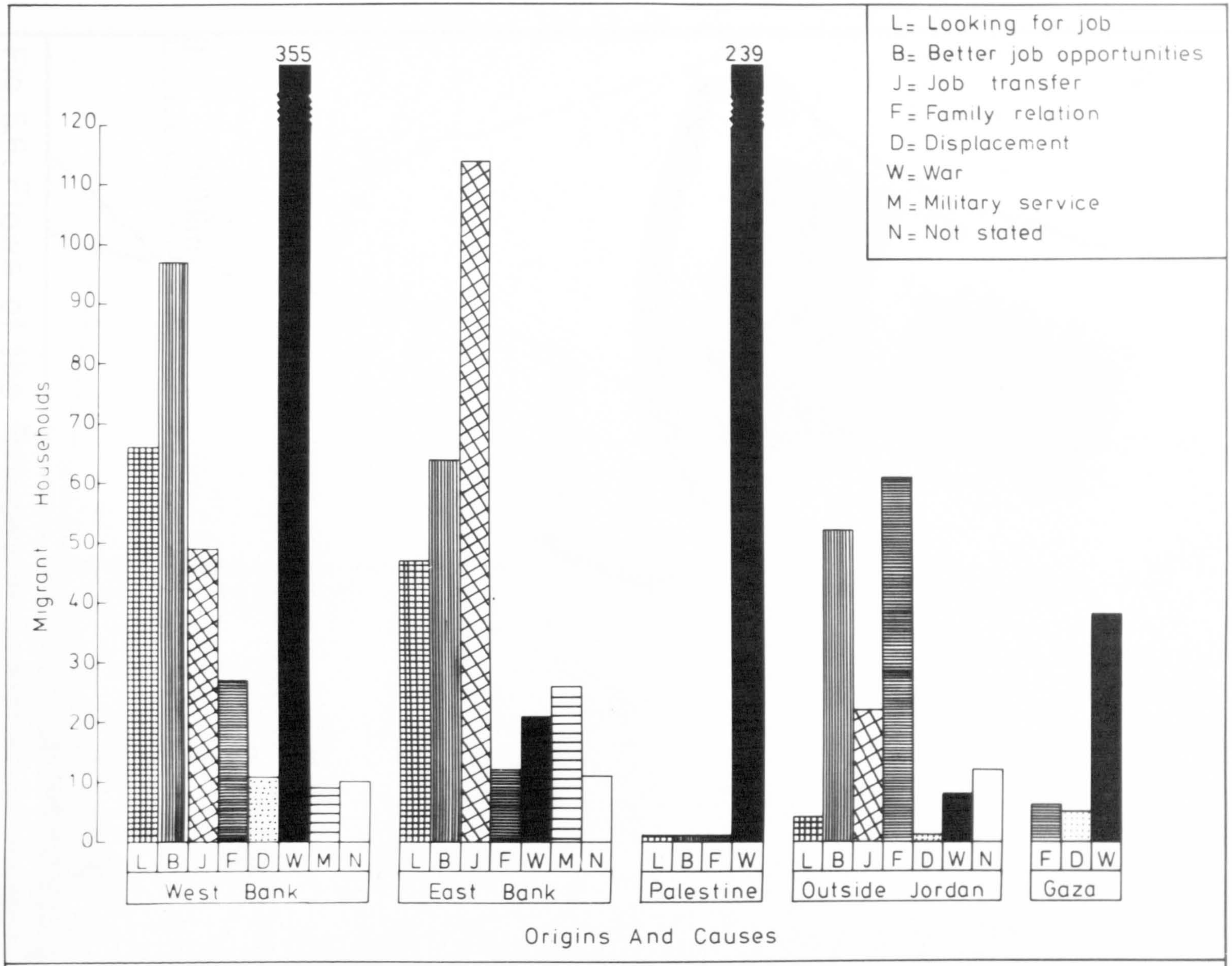

Fig. 5.5 Motives of Migration to Amman in 1977 Survey.

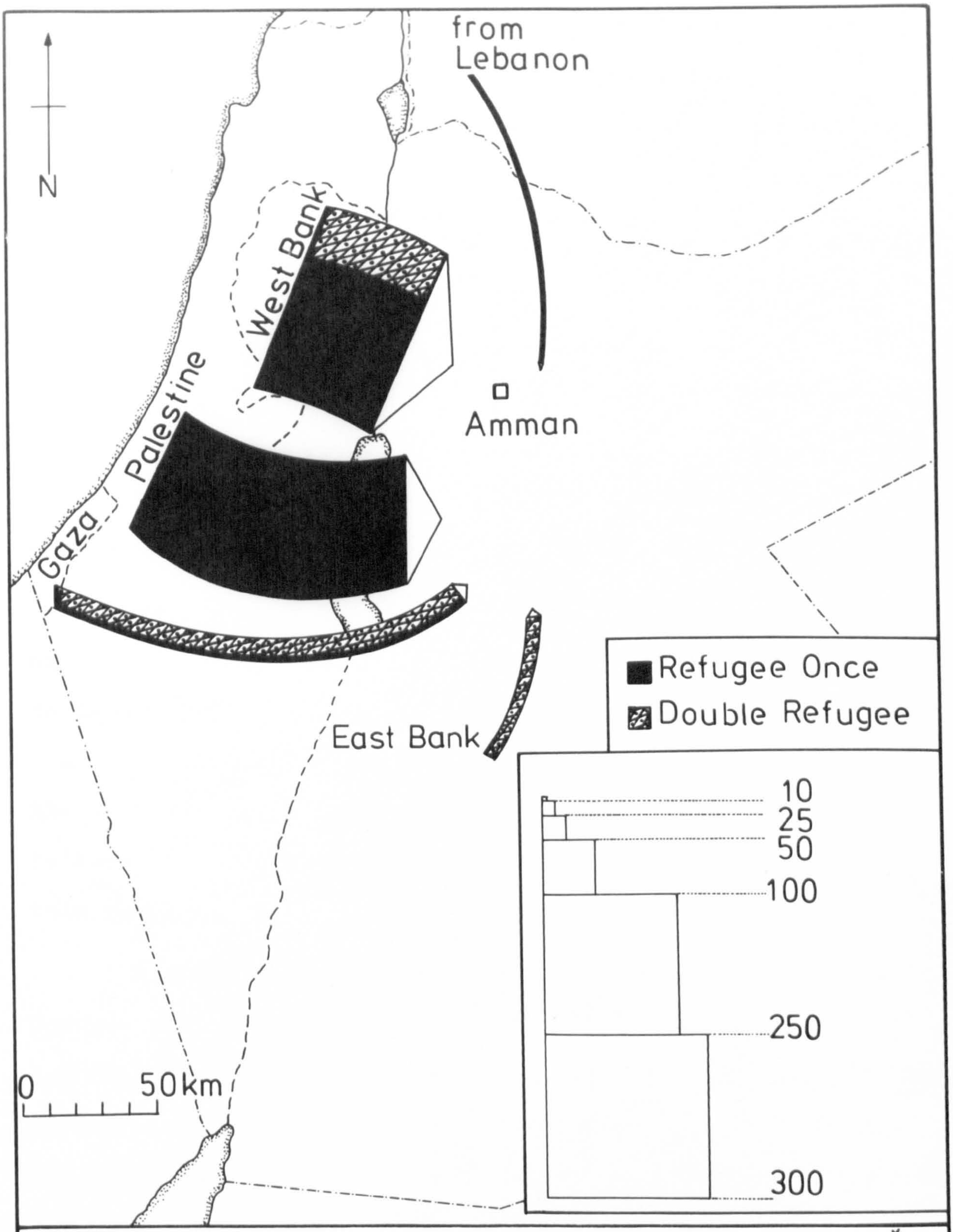

Fig. 5.6 Flows of the Refugee Households to Amman*.

*1977 Survey

MS

III. Internal Migration

The volume and direction of internal migration to Amman has been largely determined by the refugee movement, which according to the 1977 survey (as we have seen already in this chapter) represent about 52% of the total volume of migration, or 40% of the total sample population. The occupation of Palestine in 1948 causing the relocation of the economic activities from the West Bank to the East Bank of Jordan, meant migration eastwards for refugees and West-Bankers. As a result, Amman has undoubtedly became the dominant centre of attraction; and indeed more and more people within the East Bank have been inclined to move to the capital.

The refugee movement followed by an economic movement may be considered as an indirect dynamic of internal migration to Amman, but this should not be disconnected from the geographical interpretation of the phenomenon concerned. To explain that, it may be necessary to investigate the geographical features of the country which may have great significance in this respect.

According to the 1961 census, the total population of Jordan, west and east, accounted for 1.7 million. Of these 1.6 million inhabitants were living in what is termed "settled Jordan". This area, some 22,000 sq. km. lying west of the Hidjaz railway line, comprises the two highland areas and the Jordan Valley. Thus 96% of the total population lived in about 23% of the country's total land area, while the remaining is an arid desert.

As a result of the occupation of the West Bank, the

estimated figure for the East Bank population (D.S., 1975) is 2.1 million; of these about two million are living in the remaining "settled area" of Jordan, or 16,350 sq. km. This area is the eastern highland and the eastern Jordan Valley, between the River Yarmouk in the north and Madaba in the south, the Hidjaz railway in the east and the River Jordan in the west (see Fig. 2.2). Therefore 95% of the total population of the East Bank lived in 20% of its total land area.

It seems at the outset that rainfall distribution and the pattern of cultivation, in the West and East Banks, are largely responsible for this pattern of population distribution, but this idea has been adjusted due to other factors. The sudden inflow of refugees, the relocation of the economy eastwards, and the consequent mushroom growth of Amman, have supplemented the influence of environmental factors upon the regional distribution of population.

Theoretically in migration, large countries experience more internal mobility of population throughout their different regions than do small countries. In this respect, it may be reasonable to say that recently, small countries, particularly developing countries, have experienced heavy internal population mobility towards their capitals or largest cities, though in terms of direction this differs from movement in large countries. In this case Jordan, which is a small developing country, internal migration took place in a very small 'settled area', while the remaining land area of the country is desert, considered here as a negative element in population mobility. Within this settled area the push-pull factor is more dominant than the distance factor, if we take into account the smallness of the area

and recent developments in transport which have reduced the effects of distance (Ragheb, 1972). In addition, the regional socio-economic variations and the city-size distribution may be considered as other factors affecting migration in Jordan. The effects of the above factors will be examined now concentrating on : origins, volume, urban-rural background and causes of migration.

The total number of internal migrant households in the 1977 sample was 532, i.e. 30% of the total sample households, or 39% of the total sample migrant households. This figure on internal migration represents the voluntary movement to Amman from the West Bank and the East Bank for the period 1948 to 1977, i.e. those who have stated reasons for coming to the city other than war and displacement.

The volume of internal migration to Amman city from the subdistricts of Jordan, according to the 1977 sample survey, is shown in Table 5.4. For the two major regions, the West Bank and the East Bank, the number of out-migrant households is quite larger from the latter than from the former. This is obviously attributable to the occupation of the West Bank in 1967, since its contribution to the internal migration to Amman is larger than that of the East Bank before 1967 (see Table 5.8).

The variation in the volume of out-migration from each subdistrict is more interesting. Salt subdistrict (which is the only subdistrict in Balqa district) is the largest contributor to internal migration to Amman city, contributing about 13% of the total internal migrant households in the city.

Table 5.4 Internal Migrant Households to Amman, 1948-1977, by Subdistrict of Origin and Urban-Rural Background

Previous Residence (Subdistrict)	Urban	Rural	Total	Percentage	
				Urban	Rural
Ramallah	25	20	45	55.5	44.5
Hebron	32	12	44	72.7	27.3
Nablus	32	11	43	74.4	25.6
Jerusalem	34	4	38	89.4	10.6
Jericho	29	2	31	93.5	6.5
Jenin	6	15	21	28.6	71.4
Tulkarm	7	14	21	33.3	66.7
Bethlehem	15	-	15	100.0	00.0
Total West Bank	180	78	258	69.8	30.2
Salt	48	23	71	67.6	32.4
Irbid	28	22	50	56.0	44.0
Zarqa	29	-	29	100.0	00.0
Amman	2	25	27	7.4	92.6
Karak	19	5	24	79.2	20.8
Madaba	13	7	20	65.0	35.0
Tafeeleh	11	1	12	91.6	8.4
Ma'an	5	6	11	45.4	54.6
Ajlun	3	6	9	33.3	66.7
Mafraq	4	4	8	50.0	50.0
Jarash	3	3	6	50.0	50.0
Ramtha	4	-	4	100.0	00.0
Aqaba	3	-	3	100.0	00.0
Total East Bank	172	102	274	62.8	37.2
TOTAL	352	180	532	66.2	33.8

Source : The 1977 Sample Survey

Irbid, Ramallah, Hebron, Nablus and Jerusalem subdistricts have contributed 7 to 9% each, while Jericho, Zarqa, Amman and Karak subdistricts have contributed 4 to 6% each. Thus, the figures observed in Table 5.4 seem at the outset to suggest that more people tend to migrate short distances, and fewer migrate long distances. A detailed investigation shows that this is not entirely true, although Kawabe (1973) also arrived at the same conclusion when he analysed the survey of 1967, conducted by D.S., which covers the period 1962 to 1967.

If we examine Table 5.5, which shows the distance and number of internal migrant households to Amman city from the subdistricts in the country in 1977 sample, the highest percentage was found to be from subdistricts which are located in the zone of 50-100 km. distance from Amman city, and the second highest percentage from subdistricts at 100-150 km. distance, while the third highest percentage was from the subdistricts of less than 50 km. distance from the capital. However, if we take into account the figures of internal migrant households for the subdistricts of the East Bank only, then the distance factor is more applicable than it is for the West Bank subdistricts. Nevertheless, it can be said that the distance factor is not clearly substantiated for the mobility of the people from the subdistricts to Amman city, although some of these seem to be influenced by it. Hence, consideration might be given to other determining factors for the explanation of internal migration to Amman.

Ravenstein (1885) in his "Laws of Migration" postulated that the urban inhabitants are less mobile than those of rural areas. In advanced countries this needs adjustment as rural-

Table 5.5 Distance and Number of Internal Migrant Households from Subdistricts to Amman City in 1977

Zone in the Distance (Km) of	Number of Migrant Households to Amman	Subdistricts
0 - 50	153	Amman, Zarqa, Madaba, Salt, Jarash
50 - 100	183	Ajlun, Irbid, Mafraq, Ramtha, Jericho, Nablus, Jerusalem
100 - 150	170	Karak, Hebron, Ramallah, Jenin, Tulkarm
150 - 200	12	Tafeeleh
200 - 250	11	Ma'an
300 - 350	3	Aqaba

Source : 1. The 1977 Sample Survey

2. Kilometer distance between major cities and towns provided by Ministry of Transport

urban migration has considerably reduced in terms of volume and rate, while urban to urban migration has increased (Kosinski and Prothero, 1975). Internal migration to Amman, although a capital of a developing country may be described as largely urban to urban rather than rural to urban migration, the contribution of urban migration to Amman being twice as large as that of rural migration. About two-thirds of the internal migrant households came to the city from other towns in the country. Those who came from urban West Bank locations are slightly larger than those from urban East Bank. On the contrary those who came from rural East Bank locations are larger than those from rural West Bank. Houston (1976) argued that urban in-migration is very much affected by the existing levels of urbanization. In this respect the internal migration to Amman may be viewed in relation to the urban population in the country as a whole, which increased from 36% of the total population in 1952 to 44% in 1961, for the West and East Banks, and to about 66% in 1976 for the East Bank only (D.S., 1953, 1964 and 1976 A).

The dominance of internal urban migrant households to Amman may suggest that internal rural migrant households tend to move to other urban places in the first stage and then to Amman in a second stage, but this is not the case since the step-direct movement investigation indicated that there is no significance of step mobility for voluntary internal migrant households (see page 105 , and Fig. 5.2b). The limited economic prospects in many urban places, particularly in the East Bank, leaves little scope for rural migrants to move in stages. It is not just the rural migrants who face this

condition, but also the urban dwellers themselves, who may not find sufficient working places in such urban areas. In some subdistricts such as Irbid, Salt, Ramallah, Jenin and Tulkarm, the above-mentioned factor may be considered stronger than in other subdistricts. In other words some towns offer less jobs to both their residents and to the rural inhabitants of their hinterland than other towns, largely due to city-size distribution where more jobs can be found in larger towns.

The regional population distribution may be responsible also for internal migration to Amman. Unfortunately figures for this distribution in the West Bank and the East Bank can be only obtained from the 1961 census, long out of date, but there is no alternative to using its findings. The total population distribution in the districts of Jordan in the 1961 census was examined against the total internal out-migrant households from these districts to Amman in the 1977 survey. Table 5.6 indicates the strong relationship between population distribution and internal out-migration to Amman city. Jerusalem, Nablus, Irbid and Amman districts, which have contained the highest percentages of the total population in 1961 (20%, 20%, 16% and 11% respectively) have counted for the highest percentages of the total internal out-migrant households to Amman city (24%, 16%, 15% and 14% respectively) in 1977 . Although Balqa district has formed about 5% of the total population in 1961, (lower than that of Hebron, 7%), it has comprised 13% of the total internal out-migrant households to Amman city (higher than that of Hebron, 8%). This exceptional case can be attributed to the distance factor (see Fig. 5.7) . On the other hand, Karak and Ma'an districts which have counted for the lowest percentages of the

Table 5.6 District Populations in 1961, and Out-Migrant Households to Amman in 1977 Survey

District	Percentage of Total Population, 1961 (1)	Out-migrant Households in 1977 Sample (2)
Jerusalem	20.2	24.2
Nablus	20.0	16.0
Irbid	16.1	14.5
Amman City	14.4	-
Amman (excluding Amman City)	11.1	14.3
Hebron	7.0	8.3
Balqa	4.6	13.3
Karak	3.9	6.8
Ma'an	2.7	2.6
Total	100.0	100.0

Sources : (1) D.S., 1964, Vol.1, P.28
(2) The 1977 Sample Survey

Table 5.7 Causes of Internal Migration to Amman, 1977 Survey

Causes	Looking for Job	Better Job Opportunities	Job Transfer	Family Relations	Military Service	Not Stated	Total
Number	113	161	163	39	35	21	532
Percentage	21.3	30.3	30.6	7.3	6.6	3.9	100.0

Source : The 1977 Sample Survey

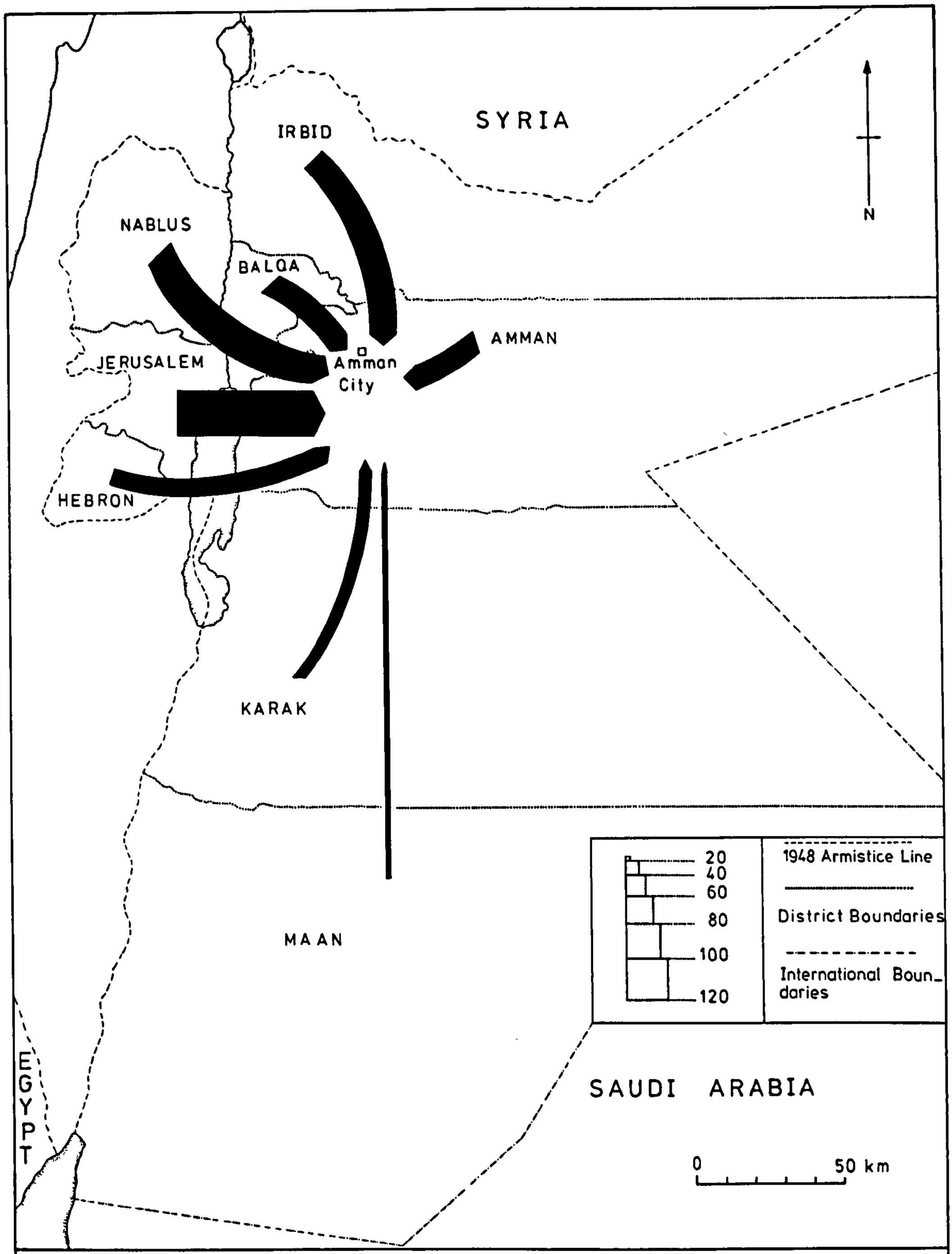

Fig. 5.7 Flows of the Internal Migrant Households to Amman*.

*1977 Survey

total population in 1961 (about 4% and 3% respectively), have also counted for the lowest percentages of the total internal out-migrant households to Amman city in 1977 survey.

Causes of Internal Migration

The 1977 survey gives us evidence for which to assess the nature of the direct motives for internal migration as stated by the migrants themselves as shown in Table 5.7 The dominant factors were found to be job transfer (31%), better job opportunities (30%) and looking for a job (21%), so approximately 82% of all the internal migrant households came to Amman as a result of these factors. The remainder represent those who came because of family relations and military services (7% each) or stated no reasons (4%) .

It may be noted that those who came because of job transfer represent what may be referred to as 'directed movement', since they have no choice. To this also belong the household members of those heads of household. Thus the household mobility in this case is controlled by a directed factor. In this respect, the 1967 survey of migration has pointed out that about 75% of the migrants to Amman between 1962 and June 1967 (before War) came to join the family, while those who came because of job transfer represent only 16% of the total number of migrants for the same period. No doubt that the children and the wife of the head of household in this case have no choice but to join him, therefore the governing reason for that movement was not to 'join the family' as suggested by the survey of 1967, but 'job transfer'. Even in the non-directed movement the children and the wife have no choice

in the migration process in Jordan, as in most other countries of the Middle East.

The second major motive was better job opportunities. About 30% of the internal migrant households came either for investment or for better conditions of work to adjust their living standard. This factor may coincide with what has been called the economic factor, which was represented by the relocation of the economic activities from the West Bank to the East Bank, which in turn created better economic conditions in this area. It is no surprise that the relocation process of the economic activities led to concentration in the capital since it started in the late 1950's and early 1960's. Wander (1969) gives us an excellent example of the effect of that process on internal migration by comparing (a) the jobs dominating the economic structure of the West Bank towns, which do not offer, generally, the type of work the majority of migrants are particularly looking for to improve their social and economic status, with (b) the greater variety of activities in the more industrialized economy of Amman city, which seems to agree better with the migrants expectation of economic advancement. The figures in Table 5.8 supplemented the above fact. Those who came from the West Bank looking for better job opportunities represent 61% of the total number of those who came for the same reason.

Looking for a job is the third major motive for migration to Amman. About 21% of the internal migrant households came for that reason, the majority of these also from the West Bank. Wander has argued that the percentages of persons seeking a job in Amman, although very high in the

Table 5.8 Causes of Internal Migration to Amman, 1948 - 1977, by Period of Migration and Origins

Period	1		2		3		4		5		6		Total		Grand Total
	W	E	W	E	W	E	W	E	W	E	W	E	W	E	
1948-1952	10	14	15	6	9	3	3	4	3	9	1	-	41	36	77
1953-1958	21	13	27	14	6	20	10	3	3	8	3	3	70	61	131
1959-1966	32	9	40	20	29	36	5	3	3	5	4	2	113	75	188
1967-1971	2	8	1	15	2	28	7	2	-	3	1	4	13	60	73
1972-1977	1	3	14	9	3	27	2	-	-	1	1	2	21	42	63
Total	66	47	97	64	49	114	27	12	9	26	10	11	258	274	532
Grand Total	113		161		163		39		35		21		532		

W = West Bank
E = East Bank

1. Looking for job
2. Better job opportunities
3. Job transfer
4. Family Relations
5. Military Services
6. Not stated

Source : The 1977 Sample Survey

city (in the early 1960's), was somewhat lower than in most of the other urban places. This suggests that job opportunities are comparatively better than elsewhere and explains why so many people come to Amman.

It is worth noting that two interesting papers were discussed in the Jordan Development Conference in 1976; the first related to the 'Basic Social Services in the Jordanian Villages and Remote Communities', and the second was concerned with 'Amman Region and its Weight in Jordan's Economy'. Although both give very little attention to internal migration in Jordan and concentrate on the economic developments, they can offer some explanation to the internal migration process. The first paper concluded that basic social services in the rural areas are below the desired level, if they exist at all (National Planning Council, 1976, 111). Drinking water and electricity services are either unavailable or below standard. Therefore, it was suggested that the search for better standards of living and higher incomes stand amongst the strongest incentives, and that a substantial part of internal migration resulted from differentials in income and social services between Amman and the rest of the country. Another aspect of rural migration to Amman city was considered; the concentration of most of the villages in Irbid and Amman districts. In the 1975 social services survey the two districts had 546 villages out of a total number of 794 in the East Bank. This may supplement the findings of the 1977 sample survey, in which the rural migration to Amman city from Irbid and Amman districts accounted for 62% of the rural internal migrant households from the East Bank (see Table 5.4). The second paper investigated the role of Amman region as an

economically attractive place. According to that paper, Amman region in 1975 housed 53% of the East Bank's total population, contained 93% of the non-agricultural establishments (employing 5 persons or more) and provided job opportunities for 95% of the labour force outside agriculture and the army and police force. The paper concluded that aside from agriculture, which contributed 12% of the Gross Domestic Product, Jordan's economy is the economy of Amman region, where the population enjoyed a higher per capita income and, thus, higher standard of living than the rest of the population. The concentration of most of the economic activities in Amman region attract more people from other parts of the country. The concentration of social and economic services in Amman may be summarized as follows :

1. In 1973 there were 15 telephones per 1,000 persons in Amman region, as compared with 4 per 1,000 persons in the rest of the country.

2. All of the 21 periodicals and weeklies, as well as four daily newspapers and radio, television, printing and publishing houses are located in the capital.

3. About 54% of the hospitals and 74% of the pharmacies in the country are located in Amman region.

4. Out of 111 classified and unclassified hotels in the East Bank in 1974, approximately 74% are located in Amman city (D.S., 1976 B).

The above paper on Amman region compared the number of economic establishments in the region to that of the country, but it did not include their distribution in the towns of the East Bank. Fortunately, the Employment survey for Establishments

engaging 5 persons or more of December 1975 shows this distribution (D.S., 1976C). According to this survey, Amman city accounted for 83% of the total number of establishments in the country, Irbid and Zarqa 8% and 5% respectively, while Salt, Karak, Ma'an and Aqaba all together accounted for only 4%. Amman establishments employed 93% of the total employees in the establishments of the East Bank (Table 5.9). This may be considered as another explanation for the movement from those towns and cities of the East Bank, which dominates the internal migration to Amman.

In 1977 survey a considerable number of the internal migrant households came to Amman because of military service. This may be regarded as looking for a job in the first stage and as a job transfer in the second, since the head of the household applies first to join the army, and then he may have to join his unit in a different place. It may be noted that this was the case in the 1950's and early 1960's, but recently two years service has been a compulsory duty for those who reached the age of 18 years, therefore conscripts have a choice whether to join the army or not.

Family relations was the reason for about 7% of the total internal migrant households to Amman, with a majority from the West Bank, some coming after 1967 to join a divided family. It is well known that in Jordan relatives comprising large families tend to gather in one place. Even those from the same place of origin are inclined to concentrate in one place, as we will see later in the following chapter. In some cases a member of a large family migrates with his wife and children, and then he encourages his brother or his father to

follow him.

The causes of internal migration have been examined against a breakdown of the period 1948 to 1977 into five periods, in order to understand the relationship between the development of Amman and the causes of internal migration. Generally most of the internal migrant households came into Amman in the period 1948 to 1967 before war. As the actual development in Amman started after the 1948 events, the mobility of the population from other parts in the country accelerated during the late 1950's and early 1960's. To this one may add that commercial activities flourished around that date, and the city expanded rapidly. Table 5.8 shows that most of the internal migrant households arrived in the city during the period 1959 to 1966, which coincides with the fact that many development plans were set up at that time. In the period 1972 to 1977 another stage of economic development started, although the number of internal migrant households was smaller than that in previous periods. This may be attributed to the events of 1967. On the other hand, this period has witnessed the arrival of a considerable number of migrant households from outside Jordan, a majority of whom are return migrant households.

Table 5.9 Number of Establishments and Number of Employees in the Cities of the East Bank, December, 1975

Cities / Establ-istments & Employees	Amman	Zarqa	Irbid	Salt	Karak	Ma'an	Aqaba	Total
Establishments 5 persons or more	1199	74	113	25	15	5	11	1442
Percentage	83.0	5.0	8.0	1.6	1.2	0.4	0.8	100.0
Number of Employees	83046	2528	2108	561	283	130	742	89398
Percentage	93.0	2.9	2.3	0.6	0.3	0.1	0.8	100.0

Source : D.S., 1976 C, Table 6

IV. Return Migration and Immigration

The 1967 survey on internal migration for the period 1962 to 1967 before war, included the migrants from outside Jordan. Their number in the case of migration to Amman at that time accounted for 16% of the total migrant households. The survey, unfortunately, did not include any details concerning their country of origin, whether they were return migrants or immigrants. However, it does distinguish between the total number of migrants in terms of Jordanians or non-Jordanians. The latter formed about 7.5% of the total migrants to Amman, but also the nationalities of the non-Jordanians were not stated, nor whether they were coming to Amman from inside Jordan or from abroad.

The 1977 sample survey examined in greater detail the movement of the migrant households who came to Amman from outside Jordan. The survey classified those as either Returning Jordanians or Immigrants, and also included their country of origin or of residence before coming to the city, as well as the reasons and the date of their arrival in Amman.

Return Migration

Three main types of return migration have been identified by King (1978) :

1. Movement of people between countries of equal standard of living and levels of economic development (e.g. British migration to and from North America or Australia).
2. Movements of developed migrants back from underdeveloped countries (e.g. French from Algeria, British from Kenya).
3. The return migration of workers and their families from more developed countries (e.g. West Indians from Britain,

Puerto Ricans from U.S.A.).

It is suggested that a fourth type may be added, which takes place between the developing countries themselves and is concerned with the return migrants of a poor developing country from a richer developing country such as the Egyptians and Tunisians from Libya, Jordanians from the Gulf States and Kuwait or from Saudi Arabia. On this basis it may be reasonable to classify Return Jordanian migrant households under the third and fourth types mentioned above, since some of them returned from rich oil countries and others returned from developed countries.

The volume of return migrant households to Amman according to the 1977 sample survey is about 7% of the total number of migrant households, but it may be considered as an indication of the recent trend in migratory movement, as well as a sign of the influential role of Amman to attract migrants from outside the country. Approximately 80% of the return migrant households came from the neighbouring Arab countries, and the rest returned from Europe and the Americas (Fig. 5.8). The return migration from rich Arab countries is very obvious and represents 66% of the total volume of return movement (Table 5.10), about two-thirds coming from Kuwait and the Gulf States (Fig. 5.8), which were considered as the main attractive area for Jordanians in the Arabian peninsula (Dodgeon, 1978; Hill, 1969).

King also discussed a variety of classifications to identify a typology of return migration. On the basis of these classifications, the return movement to Amman may be discussed according to the following : (a) the pattern of movement in the country of origin, (b) the motives to

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Table 5.10 Percentage of Return Migrant Households to Amman by Country of Previous Residence, in 1977 Survey

Country/Region	Percentage of Return Migrant Households
Kuwait & Gulf States	41
Saudi Arabia	19
Europe	10
Americas	10
Libya	6
Iraq	5
Syria	3
Lebanon	3
Egypt	3
Total	100

Source : The 1977 Sample Survey

emigrate and return, (c) the employment status of the return migrants (Table 5.11).

With regard to the pattern of movement in the country of origin, the figures show that only 9% of the parents in return migrant households were born in the city itself and emigrated from and returned to Amman. The remainder represent those who were born outside Amman elsewhere in the country and emigrated from Amman and returned to it. However, some of these came to Amman before emigrating for a maximum period of four weeks, in order to obtain passports or to arrange booking with travel agents, so we cannot consider them as if they had emigrated from Amman, since they did not shift residence to Amman.

The motives of emigration and return migration are also discussed. In this respect, 77% of the return migrant households originally emigrated because of high wages and better job opportunities in the host countries, while 17% left for educational purposes abroad, and 2% as government diplomats. However, the motives for returning are different from those for emigrating. Better job opportunities were responsible for only one-third of those who returned to Amman, while this motive had been responsible for the emigration of more than three quarters of the return migrant households. An explanation of this may be that these had emigrated in the early 1960's, when the economic development of Jordan was in its early stages. No doubt that the oil countries of Kuwait and Saudi Arabia at that time offered better wages and jobs. Furthermore not only the oil industry itself provided many jobs, but other services attached to it have created the demand for

semiskilled labour (Ragheb, 1972). However, the government of Jordan has began some development plans during the last ten years, which have attracted some of the Jordanians formerly living abroad. The local private sector has also encouraged Jordanians abroad to return, particularly those in the Gulf States, Kuwait and Saudi Arabia, by offering them facilities, such as opening subsidiary branches to enable them to buy houses or land in Jordan to be saved for them when they decide to return. Also some local companies contacted Jordanians in the above mentioned countries inviting them to share in the establishment of small plants in Jordan.

Family ties are perhaps more important as a reason for return migration (Table5.11). Most of those who returned came to Amman after the 1967 war when their families fled from the West Bank, therefore they returned to join their families. There is also a small number of those who returned were originally refugees of 1948, stayed in Jordan for a few years to obtain citizenship, then emigrated to improve their conditions and returned after a while to join their families.

The job transfer motive may be less important, but it is an indicator of what King has called 'planned' returns. Although those who emigrated for this reason are very few, the proportion of those who return for the same purpose is relatively high. This may be attributable to the fact that many of those who have emigrated for educational purposes were on contract with the government to return back home after the completion of their study abroad. At the same time some of the return migrant heads of household who have emigrated for educational purposes, but were not on contract

Table 5.11 Patterns of Return Migration to Amman in 1977 (Percentages of Return Migrant Households)

Movement of Emigration And Return						
		Born in Amman			Born Outside Amman	Total
		9			91	100
MOTIVES	To Emigrate	Better Wages And Jobs	Education	Government Diplomats Or Missions	Not Stated	Total
		77	17	2	4	100
	To Return	Looking for Job	Better Job Opportunities	Job Transfer	Family relations	Not Stated	Total
		3	33	14	37	13	100
Employment Status After Return		Government Employee		Self Employed			Total
		31		69			100

Source : The 1977 Sample Survey

with the government, returned looking for jobs.

With regard to the employment status, two kinds can be recognized : government employees and the self employed. The latter accounted for more than two-thirds of the return migrant household heads. No doubt that these have started investment in the city using their savings while they were living abroad. The government employees, either on contract with the government before emigrating (mainly students), or because of the nature of their jobs, have to work for the government such as in school teaching.

From the above one might expect the trend in Amman to reflect a general pattern of return migration throughout Jordan, but this is not the case. One suggestion for this may be basically that the migrants from other parts of the country are looking for better work opportunities, which are most available in the dominant city, where as the return migrants are looking for better opportunities for investment, which are also most available in Amman. This claim can be substantiated when we consider the following points : First, those who return to Amman and were born elsewhere in the country represent 91% of the total return movement. Secondly, if we look back at the internal migration and its controlling motives, then we may realize that the motives to leave the rural and urban areas and move to Amman are still in the minds of the return migrants, and because the socio-economic gap still exists between the capital and other parts of the country it is Amman which attracts return migrants. Furthermore, the Multi -Purpose Household Survey of 1975 (The Jordanians Abroad) indicated that the highest percentage of the Jordanians abroad belong

to families living in Amman district (D.S., 1976D). Although the study was limited to the East Bank, it is evident that Amman recently has become an attractive place for the Jordanians abroad. A recent study by Birks and Sinclair (1978, 1) has indicated that a "replacement migration pattern" is a very recent trend in Jordan. By that the authors mean immigration of cheap workers into Jordan to replace the emigrant Jordanians, mainly outside Amman. Although that was only considered from an economic point of view, it gives an indication that other parts of the country do not practise a significant return movement such as Amman did.

Immigration

Since its early stages of development during the 1930's, Amman has been an attractive place for migrants, businessmen and investment as much as it has been a shelter for refugees. In fact this role of attracting merchants and businessmen from inside and outside Jordan had flourished throughout the British Mandate. From the early 1930's until 1947 the city attracted a large number of merchants and businessmen immigrants mainly from Syria and some from Saudi Arabia (Hacker, 1960). Later, during the 1960's the 1967 survey on migration indicates that 7.5% of the migrants to Amman were non-Jordanians. This comparatively small size of the whole movement from outside Jordan is perhaps due to the fact that the period 1962 to 1966 represents a rather stable situation in international relationships (Kawabe, 1973). This period was followed by an unstable period, 1967 to 1971, while 1972 until the present represents another stable period and one of rapid economic development. There is also the indirect effect of the civil

war in Lebanon which enabled Amman to replace Beirut as a commercial, business and administrative centre for many international companies and organizations in the Middle East. An example of this is the UNRWA Headquarters Offices which moved from Beirut to Amman.

The 1977 sample survey covers the period 1948 to 1977. Although the size of immigrant households in the sample is very small (Fig. 5.8), it may be considered as a significant indicator as to the influence of Amman. Out of 1,355 migrant households in the sample, only 34 were immigrant, i.e. 2.4% of the total migratory movement. Among these there were 9 immigrant households included in the refugee movement. Of the remainder, 13 came from Syria, 9 from the Arab countries and only 3 from Europe.

More than half the voluntary immigrant households came to Amman because of better job opportunities, a majority of these from Syria (Table 5.12). About one-third came because of job transfer (mainly diplomats of other countries).

Table 5.12 Immigrant Households to Amman by Country of Origin and Causes of Movement in 1977 Survey

Country/ Region	Better Job Opportun-ities	Job Transfer	Family Relations	Not Stated	Total
Syria	10	3	-	-	13
Iraq	1	3	-	-	4
Europe	1	1	-	1	3
Lebanon	1	-	1	-	2
Egypt	1	-	-	1	2
S.Arabia	-	-	1	-	1
Total	14	7	2	2	25

Conclusion

The course of migration to Amman has developed as a result of the overall political events of the Middle East and the geographical imperatives. The influx of the Palestinian refugees in 1948, the refugees and displaced families from the West Bank and the Gaza Strip in 1967, the internal migration from rural and urban areas, and to some extent the return migration, have greatly affected the present situation of Amman's population. The repetition of the refugees influx in 1948 and 1967 may signify that they are always on the move and therefore suggests that the refugee is always a potential migrant. This seems to be true in the above two events, but Amman as a shelter may be the last place for a refugee movement, since there is no refuge to the East, only the desert. Internal migration on a nationwide scale seems to be unavoidable as Amman strengthens its dominance over various socio-economic aspects in the country. As a result its influence has been extended far beyond the country's borders to attract return migrants.

The differential patterns of movement to Amman have resulted from a variety of forces the strongest of which are as follows:

1. The war and displacement motive which was responsible for 50% of the total sample movement into Amman. This is an overwhelming factor in the case of refugee movement into the city.

2. The primacy of Amman represented by the dominance of the city which has developed due to the concentration of economic activities, governmental offices and services, the

availability of educational, social, cultural services, and the availability of a labour pool and communications. As a result :

3. The socio-economic variation between Amman and other parts of the country (urban and rural) has increased rapidly in favour of the former, which in turn accelerated migration into the capital.

The above forces have practised their influence on the migration process to Amman within a limited inhabited area in Jordan, so the direct movement into Amman has been prevalent (except when refugees are considered), which may weaken the effect of distance and the intervening obstacles as factors in the migration process.

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CHAPTER SIX

CHARACTERISTICS AND SPATIAL VARIATION OF MIGRANT HOUSEHOLD IN AMMAN

I. Marital Status of Migrant Parents

The purpose of this chapter is to illustrate the migrant household characteristics with regard to what may be called the familial units of movement, the parents' marital status, and their contribution to the household size of the city. Also it aims to examine the spatial variation of the migrant households in Amman considering their origin. No other studies have been undertaken on this aspect of migration to Amman, except the 1971 Survey of two uncontrolled settlements in the city (UNESOB, 1973).

As we have seen in the previous chapter, the family movement is considered amongst the main characteristics of migration to Amman. This familial mobility can be seen if we investigate the patterns of the migrant parents' marital status. The 1977 sample survey data enable us to identify such a pattern. The survey examined the parents' marital status before and after migration took place. In all, about 73% of the total migrant parents were married before migration, 15% were migrants before marriage, 8% involve migrant husbands who migrated before marriage and wives who migrated to marry, about 3% represent households in which the husband is the only migrant, and 1% represents the unmarried migrants (Table 6.1).

The above classification indicates that the parents who were married in the place of origin before migration took place is a prevalent pattern, which may suggest that the origin factor displays an important role in the migration

process to the city. This is also true for the marriage which took place after the husband and wife had moved to Amman, as well as the marriage which took place after the husband moved to the city and the wife followed to marry. These patterns are pronounced among all migrants, refugee and non-refugee alike.

If we consider the married people in Amman, then the above patterns of marital status of migrant parents can explain the high proportion of married people in the city. Wander argued that the high proportion of married people was attributed to the fact that the city attained its 1966 size in a very short period, much too short to induce a notable change in long-established customs like marriage (D.S., 1966). Encouraged by the greater variety of income opportunities migrants, seem to have transferred their traditional habits into the city rather than to have adjusted already to urban patterns of life. To this one may add the large number of married people who came to Amman as another reason for the high proportion of married people in the city. Furthermore, in the case of movement of single persons, which is not dominant among migrants to Amman, the migrant is able to adjust more easily than the family member migrant.

Another aspect of the marital status of migrant parents is that marriage is practised among the migrants themselves after their arrival in Amman, particularly those of the same regional origin. Also this can be seen among those who have been children of migrants and get married to other migrants' children.

Table 6.1 Marital Status of Migrant Parents, by Refugee, Non-Refugee and Urban-Rural Origin, in Amman, 1977

Parents' Marital Status	Percentages				
	Of Total Migrant Households	Of Total Migrant Refugee Households	Of Total Migrant Non-Refugee Households	Of Total Migrant Urban Households	Of Total Migrant Rural Households
Both Husband and Wife Married Before Migration	73.2	69.8	76.7	75.0	69.0
Husband Migrant and Wife Non-Migrant	3.3	2.5	4.0	3.7	2.0
Husband and Wife Migrants Before Marriage	14.6	26.0	3.2	13.7	16.9
Husband Migrant before Marriage and Wife Migrated to Marry	7.9	0.7	15.1	6.3	11.8
Unmarried Migrants	1.0	1.0	1.0	1.3	0.3
Total	100.0	100.0	100.0	100.0	100.0

Source : The 1977 Sample Survey

Variation in the Marital Status of Migrant Parents

With regard to the two major kinds of migration to Amman, voluntary and forced, the "husband and wife married before migration" category is dominant among the refugees, since forced movement gave no choice for a selective individual mobility, therefore the whole family moved. Also there is a considerable number of refugees in the category of "migrants before marriage", which is interesting since the refugees are living in camps in which they practise daily social contacts.

Similarly, for the non-refugees the most important category is the "husband and wife married before migration". However, another interesting category among the non-refugees is the "husband migrant before marriage and wife migrated to marry" since it forms about 15% of the total non-refugee movement. This may suggest that not only the refugees preserve strong ties with their place of origin but also the non-refugees. As for the small category "husband migrant and wife non-migrant" it is slightly more pronounced among the non-refugees.

With respect to the urban and rural origins of the whole migratory movement, it was found that the category "husband and wife married before migration" is dominant among the urban and rural migrants alike. Although the second category "husband migrant and wife non-migrant" is very small (3.7% of the urban movement and 2.0% of the rural movement), it indicates that more single persons migrated from towns than from rural areas. The third category "migrants before marriage", is slightly more common among the rural than the urban, as well as the case in the fourth category "husband migrant before marriage and wife migrated to marry". This

can be attributable to the fact that in Amman, the regional origin ties among rural migrants are stronger than urban migrants. Therefore, those of rural origin prefer to marry from the same origin more than those of urban origin.

The marital status patterns of migrant parents of the same origin may be considered as an important regional origin factor in migration to Amman. As a result, it may explain how the migration affects the natural increase, since the migrants themselves are still in a transitional period of adjustment to city life, in which they transferred their traditional habits to the city from origins characterized by high fertility rates. Therefore it may be necessary to discuss the household size at the time of arrival in Amman and in 1977, to examine the contribution of migration to household size in the city as a whole.

II. Migrant Household Size and Composition

Migrant Household Size

The data collected in the 1977 survey indicate that the size of the migrant household is smaller at the time of arrival in Amman than one might expect. Table 6.2 shows the size of the household at the time of arrival and for 1977. Nearly 70% of the migrant households comprised 1 to 4 members at the time of arrival, while the same size forms only 17.9% of the same total in 1977. The migrant household of 5 to 8 members and those of 9 to 12 members comprised 26.3% and 4.0% of the total migrant households, respectively, at the time of arrival. On the contrary for 1977 the former represents 49.5% and the latter 28.4% of the same total. Furthermore, on the survey date there has been 4.2% of the total migrant households representing the households of 13 members and more, which did not appear as a category at the time of arrival. The above figures suggest that the high proportion of the small-sized households at the time of arrival has been decreased in 1977 and is being replaced by the dominance of large-sized households. On the other hand, it may indicate that the small-sized households have increased their members more than the large-sized households.Therefore it is necessary to examine the average size of migrant households at the time of arrival and for 1977, and against their origin.

The average size of migrant households as a whole at the time of arrival in Amman was 3.7 members. Although the average was higher among the refugees than the non-refugees, it was the lowest among the refugees from Palestine (Table 6.3). The

Table 6.2 Migrant Household Size at Arrival and in 1977, in Amman

Household Members	At Arrival		In 1977		Percentage Increase Or Decrease
	Number of Households	Percentage	Number of Households	Percentage	
1 - 4	936	69.1	243	17.9	-51.2
5 - 8	357	26.3	670	49.5	+23.2
9 - 12	62	4.6	385	28.4	+23.8
13 and more	-	-	57	4.2	+ 4.2
Total	1355	100.0	1355	100.0	00.0

Source : The 1977 Sample Survey

1948 refugees, in fact, were originally of large households at the time of arrival, but due to UNRWA relief regulations at that time, every married refugee was allowed to obtain a tent as a shelter, initially, and later on a tin or concrete barrack in the camps, and as a result most of the large households of two families or more have been split up. This situation was also pronounced in 1967, but this time UNRWA was responsible for the double refugees, while the government was responsible for the first time refugees from the West Bank only, and due to its financial problems limited relief and shelter units were introduced to the refugees who either scattered in large households or depended on relatives to find other places to live outside the emergency camps of 1967.

At the time of arrival the non-refugee migrant households from the East Bank were larger on average than those from the West Bank,possibly because of larger rural households. The interesting figure is for those from outside Jordan who have the highest average household size at the time of arrival. This includes the return migrant households, which formed two-thirds of the movement from outside Jordan. The return migrants, who had been living abroad for a while, had attained the family number they wanted, and as a result at the time of arrival in Amman they accounted for the highest average household size throughout the whole migratory movement. This can be shown if the average household size for 1977, as well as the increase in average household size, are examined against the origins of migrant household.

The average household size for the whole movement in 1977 is 7.3 members, i.e. as twice that at the time of arrival,

Table 6.3 Average Migrant Household Size in Amman at Arrival and in 1977, by Origin

Average Household size \ Origin		Palestine	West Bank	East Bank	Gaza	Outside Jordan	Total Average
Average Size At Time of Arrival	Refugee	2.6	4.4	4.8	4.7	4.6	3.7
	Non-Refugee	-	3.4	3.7	3.2	4.5	
Average Size In 1977		7.8	7.4	7.2	7.5	5.9	7.3
Average Household Size Increase		5.2	3.9	4.3	4.0	1.4	3.6

Source : The 1977 Sample Survey

but there are differences according to the origin of the migrant households (Table 6.3). Those who came from Palestine have attained the highest average household size in 1977 (7.8 members), while the corresponding figure for those from outside Jordan is 5.9 members. Households from both the West Bank and the Gaza Strip attained a higher household average size than those from the East Bank (the latter includes a small proportion of refugees).

Better results can be obtained if we consider the increase in average household size against the origin of migrant households. The average household size for those from Palestine has trebled, while it has doubled for those from the West Bank, the Gaza Strip and the East Bank, and for those from outside Jordan it has increased by only one-third. Further explanation may be derived from the fact that if we assume that the household size is 4 members for households from each origin at the time of arrival in Amman, then in 1977 it becomes 12 for those from Palestine, 8 members for those from the West Bank, the Gaza Strip and the East Bank, and 5 for those from outside Jordan.

Migrant Household Composition

Generally speaking, the household composition is considered to be a measure of social development, structure and modernization. Considering that migration to Amman is of two kinds, forced and voluntary, the household composition is less a reflection of socio-economic development than might be expected. The nuclear family (husband-wife-children) is the predominant living arrangement among the migrants in Amman, since 90.5% of the total migrant households are of

this type. The extended family, where three or more generations (a family head and his sons with their wives and children) live together, represents only 9.% of the total movement. This indicates that the "tribal pattern" is breaking down and that the large household of many generations is being replaced by smaller units.

The migrant households which provide accommodation to relatives of different degree represent a small proportion (5.7%)of the total movement to the city (Table 6.4). However, it has been observed that relatives and small household units of previously large households are living in close proximity to each other in Amman, particularly the refugees. The large household, therefore, may have more impact, socially and economically than one may assume from the data on family structure.

Table 6.4 Household Composition and Accommodation of Relatives for 1,355 Migrant Households in Amman , 1977

Household Composition	Percentage	Accommodation of Relatives	Percentage
One family	90.5	Households Accommodating No Relatives	94.3
Two families	7.5		
Three families & more	2.0	Households Accommodating 1 to 4 Relatives	5.7
Total	100.0		
		Total	100.0

Source : The 1977 Sample Survey

III. Destinations of Intra-Urban Migrant Households

The aims of this section are twofold : first to describe the intra-urban destination patterns for the migrant households moving to Amman, with particular reference to refugee and non-refugee movements and the origin of migrant households, and secondly to look at the factors possibly influencing the destination patterns observed.

A broad impression of intra-urban destinations for both the refugee and non-refugee migrant households is provided in Table 6.5. The main features to note in this table are :

1. The importance of Basman, Ras EL-Ain, AL-Naser, Bader and Yarmouk sectors as receptive areas for both refugees and non-refugees; accounting for 87.0%, 85.0%, 84,0%, 84.2% and 83.0% of each total sample household, respectively. The corresponding figures for Abdali, Ain Gazal and City Centre sectors are : 76.0%, 69.3% and 65.0% respectively, Zahran sector was found to be the least receptive sector for migrants in the city (58.0% of its total sample households were migrants).
2. In terms of refugees, the same pattern in 1 above can be seen. The sectors with the highest percentages of migrant households, have also the highest percentages of migrant refugee households (52.0%, 42.5%, 39.5% and 41.0% of their total sample households respectively, were refugees), while in Abdali, Ain Gazal and City Centre sectors refugee households account for 30.0-35.5% of total sample households, and in Zahran sector refugees form only 22.0% of its total sample households.
3. With regard to the destinations of migrant non-refugee households in Amman, a different pattern may be noticed.

Table 6.5 Distribution of Migrant, Non-Migrant Households in Amman, 1977 (Percentage)

Migrant Non-Migrant Households	City Centre	Basman	Ain Gazal	AL-Naser	Yarmouk	Ras EL-Ain	Bader -	Zahran	Abdali
Migrant Refugee Households	30.0	52.0	35.5	44.0	41.0	42.5	39.5	22.0	32.0
Migrant Non-Ref. Households	35.0	35.0	33.8	40.0	42.5	42.5	44.7	36.0	44.0
Non-Migrant Households	35.0	13.0	30.7	16.0	17.0	15.0	15.8	42.0	24.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source : 1977 Sample Survey

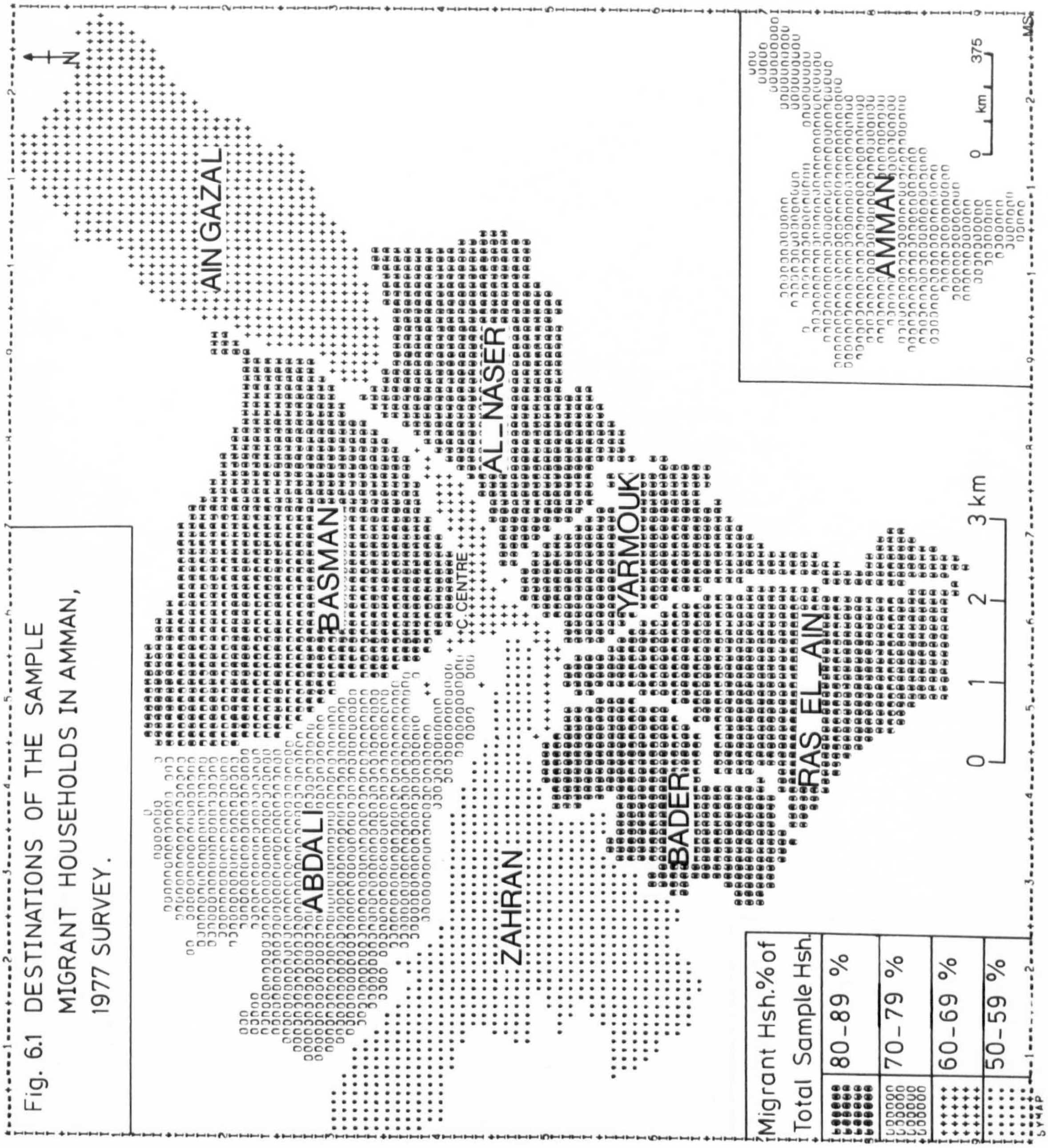
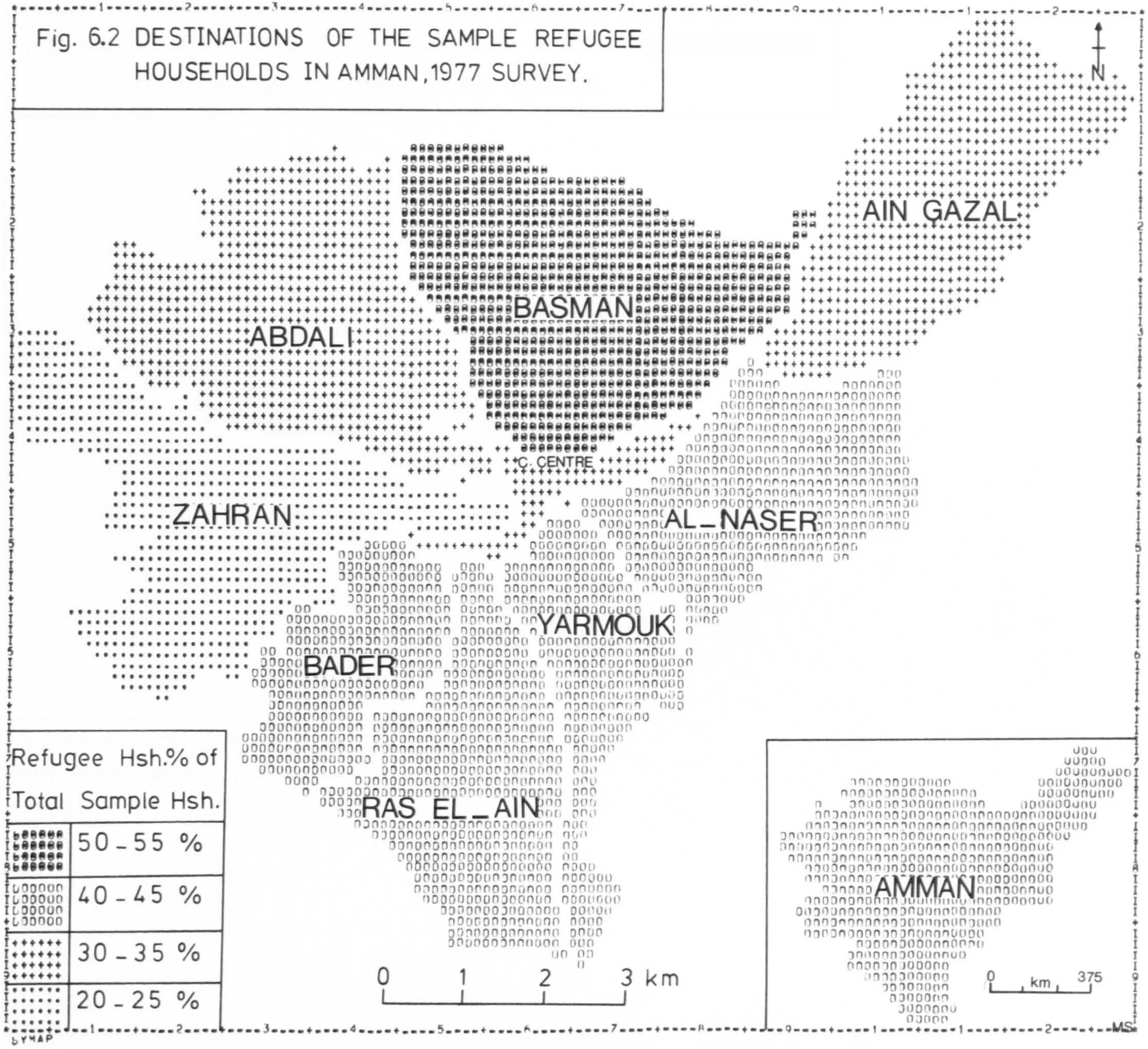


Fig. 6.1 DESTINATIONS OF THE SAMPLE MIGRANT HOUSEHOLDS IN AMMAN, 1977 SURVEY.

Fig. 6.2 DESTINATIONS OF THE SAMPLE REFUGEE HOUSEHOLDS IN AMMAN, 1977 SURVEY.



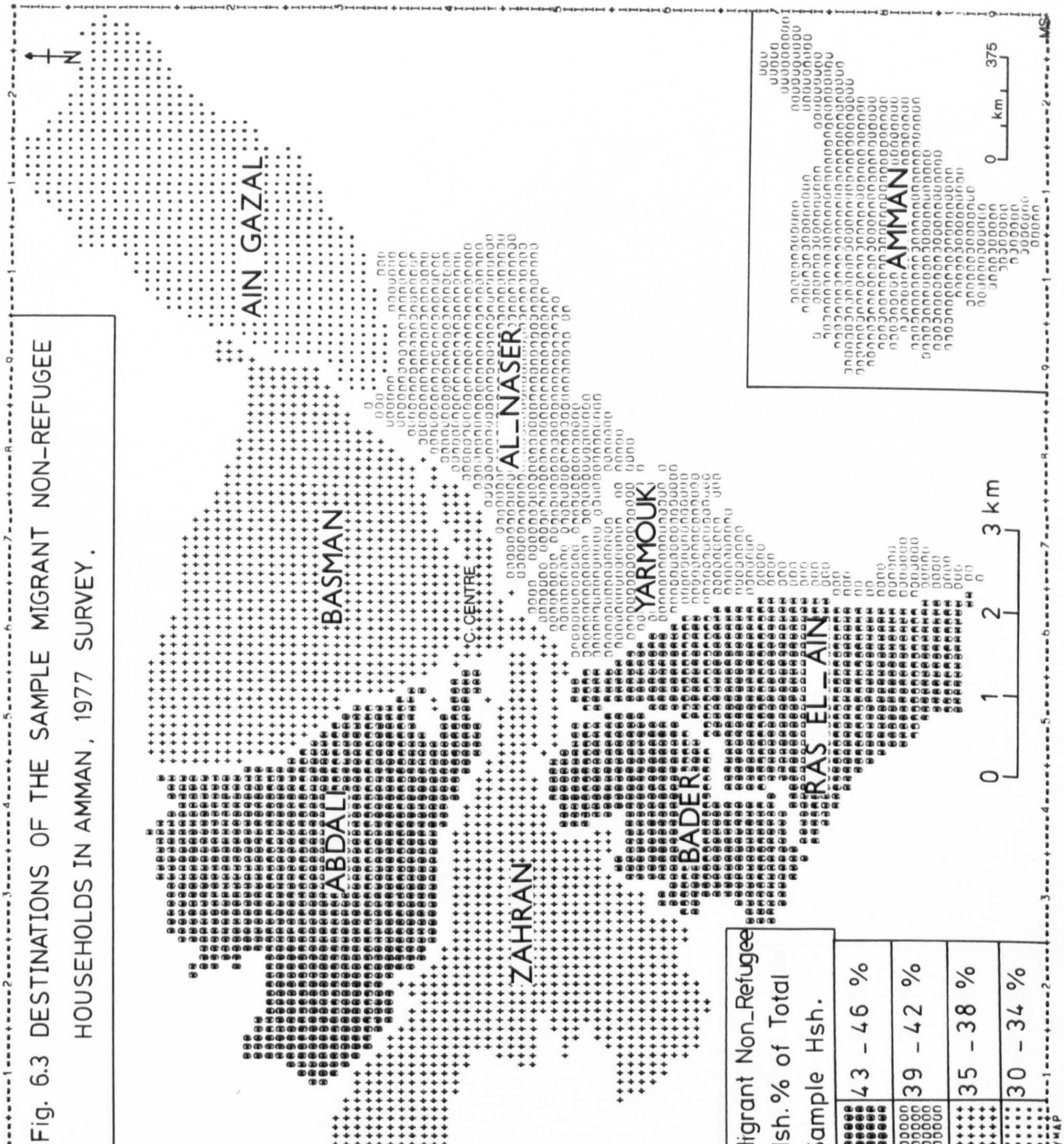


Fig. 6.3 DESTINATIONS OF THE SAMPLE MIGRANT NON-REFUGEE HOUSEHOLDS IN AMMAN, 1977 SURVEY.

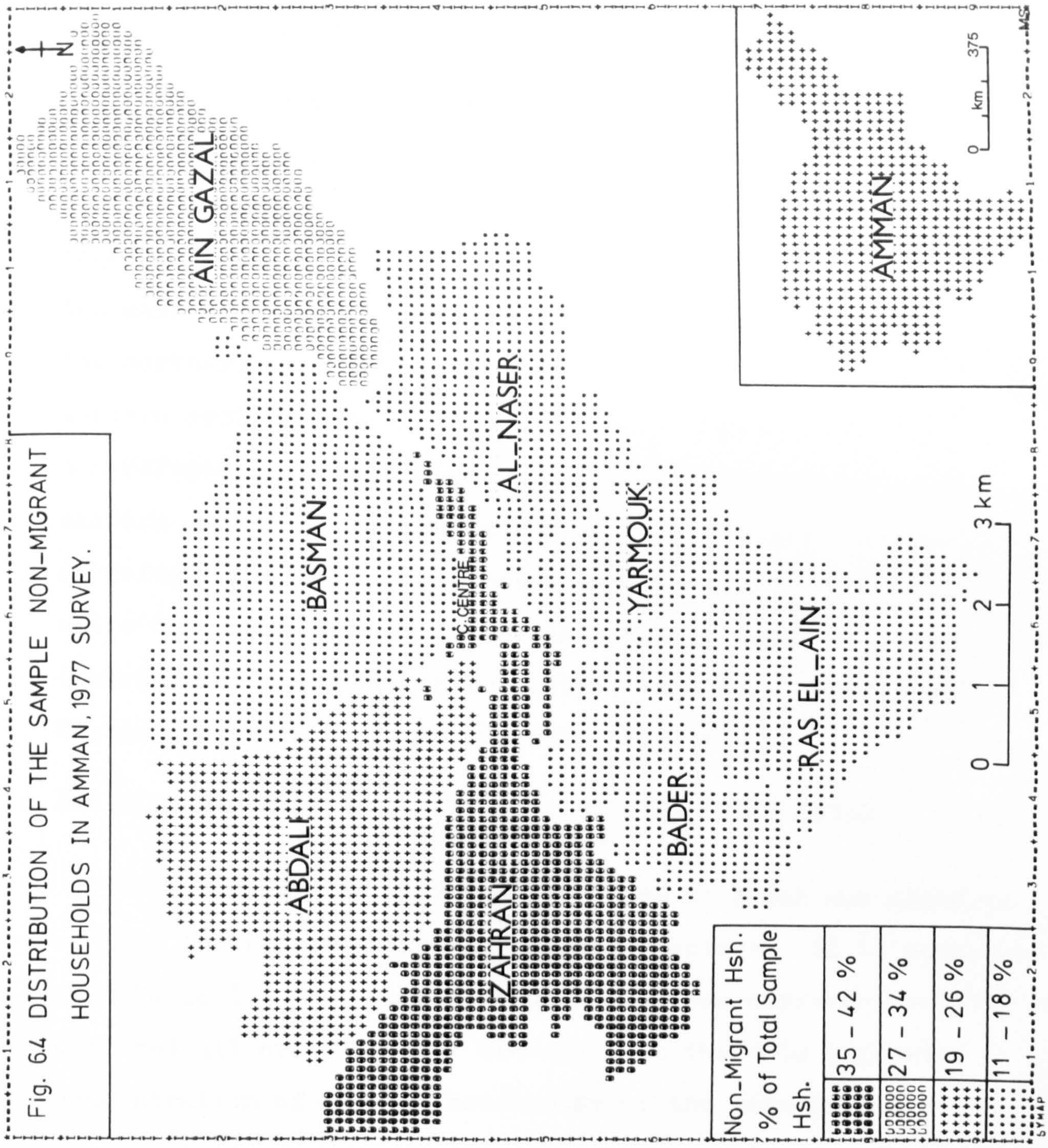


Fig. 6.4 DISTRIBUTION OF THE SAMPLE NON-MIGRANT HOUSEHOLDS IN AMMAN, 1977 SURVEY.

Bader, Abdali, Ras EL-Ain, Yarmouk and AL-Naser sectors account for the highest percentages of 44.7%, 44.0%, 42.5%, 42.0% and 40.0% respectively, while Zahran, City Centre, Basman and Ain Gazal sectors account for 36.0%, 35.0%, 35.0% and 33.8% respectively.

A cartographic picture of differential migrant household destinations in Amman is presented in Figures 6.1, 6.2, 6.3 and 6.4. In this respect the eastern and southern sectors together with the northern sector of Basman are considered the main receptive sectors for refugees (Fig. 6.2), while the north-western sector of Abdali and the southern and south-eastern sectors form the main receptive sectors for the non-refugees (Fig.6.3). In broad terms, the southern, south-eastern and the northern sectors of the city are the reservoir of refugee and non-refugee households in Amman (Fig. 6.1), while the north-eastern sector (Ain Gazal), western sector (Zahran) and the City Centre sector, together, contain the highest percentage of non-migrants (Fig. 6.4).

Factors Affecting the Migrant Households Intra-urban Destinations

The origin of migrant households to Amman was examined against their destination in the city sectors. It is apparent from Table 6.6 that migrant households from different origins diffused all over the city sectors, but there is a greater concentration of migrant households of the same origin in some sectors.

Out of 242 migrant refugee households from Palestine, 125 are concentrated in Basman and Yarmouk sectors, and the remainder are spread in other sectors. This distribution is a

result of the existing three largest refugee camps in Amman, namely, AL-Wehdat, AL-Mahatta and AL-Hussein (the latter was subdivided into two areas, one belonging to Basman sector and the other to Abdali sector, according to the recent administrative and statistical subdivision of Amman). These camps were located after the 1948 events in the outskirts of Amman at that time.

The migrant households from the West Bank seem to follow the same distribution as those from Palestine, since about one third of the former are concentrated in Basman and Yarmouk sectors, which may be explained by the fact that some of the 1967 non-camp refugees arrived in these sectors. On the other hand, Table 6.6 illustrates that the number of those who came from the West Bank is nearly the same in Ain Gazal, AL-Naser, Yarmouk and Abdali sectors. This may be partly attributable to the fact that two refugee camps were located after 1967 in the first two sectors, namely Shniller and Huniekeen (the former has been included in Ain Gazal sector according to recent subdivision of Amman). Apart from the refugee camps, the southern, eastern and north-eastern sectors of the city have also attracted non-refugee migrant households, if we take into account the development of Amman in the late 1950's and early 1960's when the built-up area began to extend over these sectors (The Municipality of Amman, 1975) (see also Fig. 3.1). Also one may add that Ain Gazal sector is the main industrial sector in the city and contains Amman International Airport. In the north-western sector, Abdali, the attraction of non-refugee migrant households is due to the recent rapid developments such as the construction of Amman Stadium, the development of

Table 6.6 Destinations of 1,355 Migrant Households in Amman by Sector and Origin

City / Sectors / Origin	City Centre	Basman	Ain Gazal	AL-Naser	Yarmouk	Ras EL-Ain	Bader	Zahran	Abdali	Total
Palestine	13	82	9	22	43	20	3	14	36	242
West Bank	36	121	85	79	92	51	43	32	85	624
East Bank	10	56	45	38	28	41	9	22	46	295
Gaza	2	17	9	6	4	9	1	-	1	49
Outside Jordan *	13	21	10	14	20	3	8	21	35	145
Total	74	297	158	159	187	124	64	89	203	1355

* Including return migrant households

Source : The 1977 Sample Survey

a modern residential area (Ashmasani), the relocation of some governmental departments, and finally its significant location between the City Centre and the University of Jordan, the newly established University Hospital (12 kilometers from the City Centre to the north-west).

It seems, therefore, that a large concentration of those who came from Palestine and the West Bank, and even from the Gaza Strip, exists in Basman sector and the eastern and southern sectors of the city, which may lead to a conclusion that the ethnic factor is very important in the case of migration to Amman, as postulated by the UNESOB (1973) report on uncontrolled settlements in Amman. This generalization is not entirely true. The figures in Table 6.6 gives us evidence that Basman, Ain Gazal, AL-Naser, Yarmouk, Tas EL-Ain and Abdali sectors, which sheltered the largest number of refugees from Palestine, the Gaza Strip and the West Bank, and make room for the largest number of non-refugee households from the West Bank and the East Bank, also accommodate the largest number of households from outside the country. All the above sectors contain migrant households from all the origins concerned, and so it may be concluded that the role of the ethnic factor is not as significant as suggested.

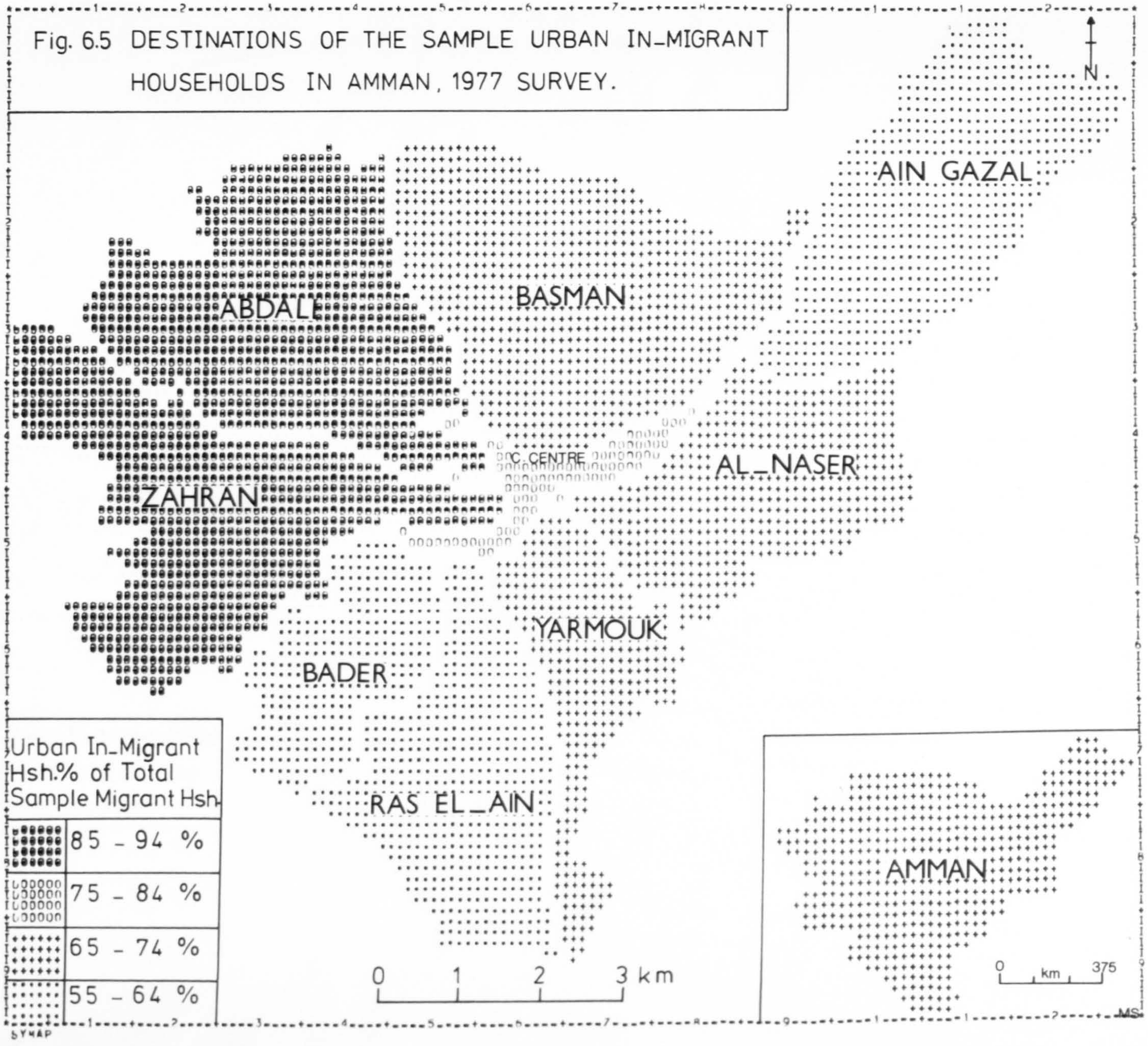
Furthermore, a considerable number of those who came from outside Jordan are concentrated in Basman and Yarmouk sectors (28%), probably because the majority are return migrant households looking to live close to their migrant relatives from the West Bank and from the East Bank. Moreover, about 38% of those from outside Jordan were found to be living in Abdali and Zahran sectors (the majority of these immigrant

households.) which are the most developed and modernized sectors in the city where most of the offices of government, embassies and international organizations and companies are located.

Other factors may be also considered to explain the distribution of migrant households in the city sectors. The refugee camps of 1948, as mentioned earlier, were located on the outskirts of Amman. On the fringes of these camps, new uncontrolled settlements have appeared as a result of either the refugees themselves building additional rooms or walls around their compounds (Buehrig, 1971), or new settlements built by the non-refugee migrant households, particularly those of low income (UNESOB, 1973 and 1970). Throughout the period 1948 to 1967 the areas between the refugee camps and the original built-up area of the city (i.e. the north-eastern, eastern and southern areas) have been the most attractive places for non-refugee migrant households. These are the areas of the middle income households. On the other hand, the western and north-western areas contain the high income households in the city, which in turn attract a few but the wealthiest migrant households. Furthermore, Figures 6.5 and 6.6 show that the eastern, southern and Basman sectors are the most receptive areas for rural migrant households, while Abdali, Zahran and City Centre are the most receptive areas for urban migrant households.

Many sociologists and demographers have demonstrated that old parts of the cities (in developed and less developed countries) are the most attractive places for migrants (Abu-Lughod, 1961; Elizaga, 1966; Dewey, 1960). On the other

Fig. 6.5 DESTINATIONS OF THE SAMPLE URBAN IN-MIGRANT HOUSEHOLDS IN AMMAN, 1977 SURVEY.



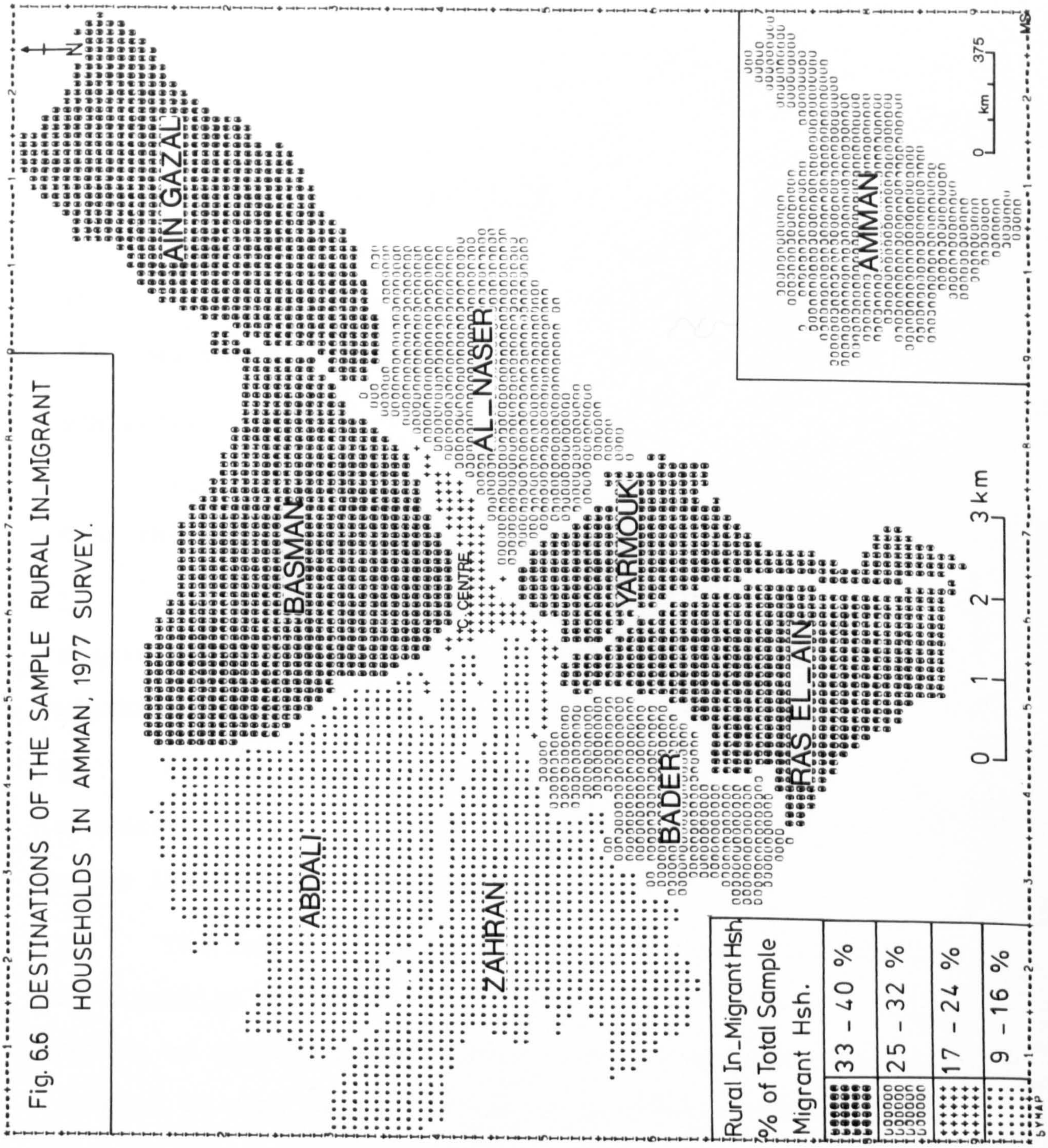


Fig. 6.6 DESTINATIONS OF THE SAMPLE RURAL IN_MIGRANT HOUSEHOLDS IN AMMAN, 1977 SURVEY.

hand, some geographers have proved that this is not always the case. Jones (1967) in his study of Birmingham concluded that the clusters of migrants are not typically sited in the slumridden heart of the city, but in the tree lined, often attractive townscapes of the middle ring. Johnson and Dewdney (1975) argued that migrants to Durham City arriving from other places in the country seem to prefer to choose the city's newly developed outskirts as their destination rather than old sections of the city. In this respect, migrants to Amman appear to follow the above theme by choosing new areas of development in the city rather than the old areas.

Conclusion

Perhaps the most significant observations emerging from the matters discussed in this chapter are the following :

1. The marital status of the migrant parents has a strong origin effect on the traditional customs and habits of the migrant households in Amman. This in turn reflects :

2. The contribution of the migrant households to the average household size was found to be great, particularly among the refugee households.

3. The role of "ethnic factor" seems much less significant in migration to Amman. Instead there is an apparent integration of migrant households from different geographical origins in many sectors of the city. The location of the refugee camps; the development of the built-up area in sectors which offer more attraction than others to the migrant particularly of middle income; the fringes of the refugee camps as a target for the low income migrant households - all

these factors have influenced the concentration of migrant household of both refugee and non-refugee.

If we consider that the sample migrant households comprise 78% of the total sample households in 1977, then the above conclusions may rise to some questions : To what extent has migration affected the marital status, household size, fertility, age and sex, literacy, education and occupation? Since these are among the major questions in the study of population, the author will be concerned in the next part of the thesis with the population structure of Amman.

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PART THREE

THE POPULATION STRUCTURE OF AMMAN

CHAPTER SEVEN

AGE AND SEX STRUCTURE OF THE POPULATION OF AMMAN

I. Youthfulness of the Population of Amman

As characteristic of developing nations which display high rates of birth, both Jordan as a whole and indeed Amman reflect a very young population structure. Despite the significant role of migration in the population growth of Amman, its effect on the city's population composition is different than that observed in other cities of developing countries. In some cities of South West Asia and Latin America, migration has affected specific age groups of the population, particularly the young adult age groups (Goldstein, 1973; Elizaga, 1966), while in Amman migration has influenced all age groups. This may be attributable to the fact that migration to Amman is characterized by a family movement rather than selective individuals (see Chapter 6). In this chapter the effects of such a movement and other factors on the age-sex structure of the population will be examined, as well as the age structure index and dependency ratio. It may be necessary here to mention that the term 'migrants' refers to those who have been born outside Amman elsewhere before 1948, while the term 'non-migrants' refers to those who have been born in Amman since 1948, whether they belong to a migrant household or not.

As illustrated by the population pyramid of the city (Fig. 7.1), the population of Amman is characterized by a remarkable youthfulness. The figures in Table 7.1 indicate that, in 1977, 46.4% of the total sample population are concentrated in the age groups under 15 years, and the prop-

ortion of adults (15-59) is 50.2% of the total population, while the aged (60 and over) formed only 3.4%. The comparable percentages at the 1961 census were 44.7%, 50.6% and 4.7%, indicating a striking growth of the population of less than 15 years. In the1966 social survey, it was shown that the figures of the age distribution were similar to those of the 1961 census (UNESOB, 1970), but after checking its figures it appeared that this was not the case in the young and adult groups because of a mis-calculation in the percentages of both, on which the analysis was based. In the 1966 social survey 46.7% of the total population were actually under 15 years, i.e. 2 % higher than the figure of 1961 for the same age groups. Nevertheless, both the 1966 survey and the 1977 survey revealed higher percentages of the population under 15 years of age than the 1961 census (Table 7.1). On the other hand the percentages of the age groups 15-59 years in 1961 and 1977 were very similar, and both were higher by 2% than that of the 1966. The proportion of the aged population (60 years and over) in 1977 is smaller than that in both 1961 and 1966. It is thus seen that the population became younger in 1966 and even younger in 1977.

The age structure is the output of three major variables, namely fertility, mortality and migration, and that of Amman suggests that it is influenced by a high fertility rate and a rapid decline in mortality, which result in a high proportion of the population being under 15 years old, while migration to Amman also influenced all the age groups, particularly the adult age groups, as shown in Figure 7.1.

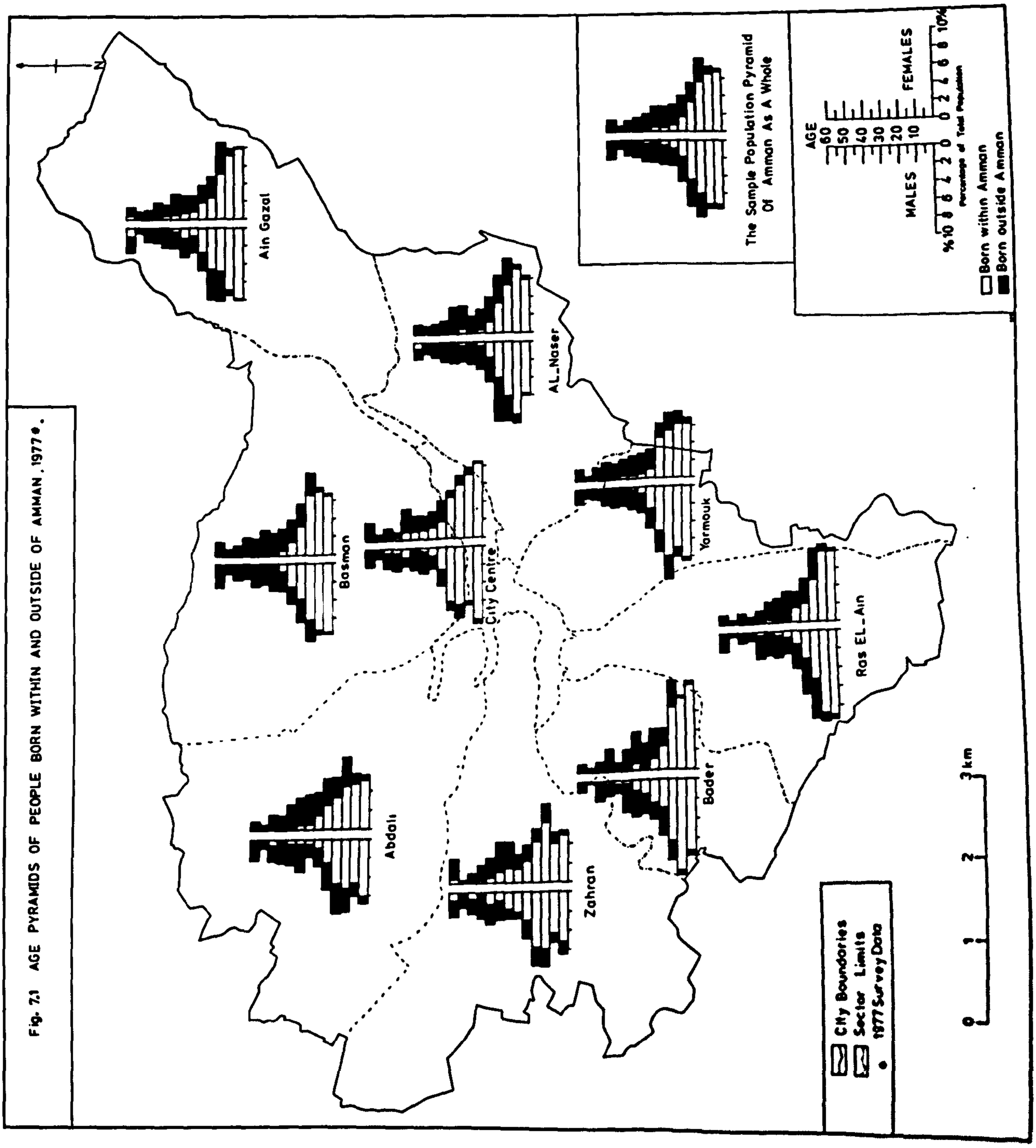

Fig. 7.1 AGE PYRAMIDS OF PEOPLE BORN WITHIN AND OUTSIDE OF AMMAN, 1977.

Table 7.1 Age-Sex Composition of the Main Groups of the Population of Amman in 1961, 1966 and 1977

1961 Census (1)

Age Groups	Numbers			Percentages			Sex Ratio Males per 1000 Females
	Total	Males	Females	Total	Males	Females	
Less than 15	110053	57850	52203	44.7	23.5	21.2	1106
15-59	124732	66927	57805	50.6	27.1	23.5	1158
60 & over	11690	5961	5729	4.7	2.4	2.3	1040
Total	246475	130688	115737	100.0	53.0	47.0	1129

1966 Social Survey (2)

Less than 15	5943	3152	2791	46.7	24.8	21.9	1129
15-59	6145	3000	3145	48.4	23.6	24.8	954
60 & over	620	360	260	4.9	2.8	2.1	1385
Total	12708	6512	6196	100.0	51.2	48.8	1051

1977 Sample Survey (3)

Less than 15	5768	2987	2781	46.4	24.1	22.3	1074
15-59	6221	3320	2901	50.2	26.8	23.4	1144
60 & over	432	265	167	3.4	2.1	1.3	1587
Total	12421	6572	5849	100.0	53.0	47.0	1124

Sources : (1) D.S., 1964, Vol.1, p.35
(2) UNESOB, 1970, Table 1
(3) The 1977 Sample Survey

The age composition of the population of Amman is different from that of the country as a whole. The 1971 multi-purpose household sample survey (D.S., 1972), indicated the following population age distribution in Jordan (for the East Bank only) :

Age Groups	Percentages
Less than 15 years	51.0
15 - 59 years	44.3
60 years and over	4.7

Compared with this, the age structure of Amman is less youthful and more adult than that of the country. These figures may suggest a lower fertility rate for Amman than for the rest of the country, but this is not the case, because of the following reasons :

(a) First, the 1972 N.F.S. concluded that the overall fertility of the three groups show no differences between the fertility of urban and semi-urban wives, while the rural fertility was lower (Rizk, 1972, 18). From the data collected in the 1977 survey the Child/Woman Ratio* was calculated, and it indicates that there are 733 children under 5 years of age per 1,000 women aged 15-44 years in Amman. This tends to support the above-mentioned fact that fertility is very high in urban areas of Jordan.

(b) Secondly, the population of Jordan, especially of Amman, has enjoyed advanced health services during the last 20 years (Darwish, 1974). Their improvements and the establishment of infant and child health centres is reflected in the rapid decline in mortality in the country, the crude death rate

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* $\frac{\text{Number of children under 5 years}}{\text{Number of Women 15-44 years}} \times 1{,}000$

declining from 21 per thousand in 1960 to 15 per thousand in 1972, a particular feature being the decline of infant mortality, estimated at 21 per thousand in 1972 (Ma'ayta, 1975). This decline in the death rate, since it was concentrated in infant and child mortality, was in demographic terms equivalent to a rise in the birth rate. As a result of a high fertility and a rapid decline in mortality, the proportion of the population less than 15 years became much higher than that 16 years earlier. An indication of this fact is suggested in Figure 7.1, where, in the population pyramid of the city as a whole, the three lowest bars represent a high proportion of the population of both sexes. The bottom bar is especially interesting since 15% of the total sample population in Amman are under 5 years of age, which emphasises the high fertility and the rapid decline of infant mortality.

(c) Thirdly, in-migration has greatly influenced all the age groups in the city as a whole, as well as individual sectors, particularly the adult age groups. As a result about 50% of the total population in the 1977 sample survey are concentrated in the age group 15-59 years. Since most of the migrants were young adults, the immediate consequence of their entry was to decrease the proportion of children in the total population. This does not, however, mean a decrease in the absolute number of children. It should also be noted here that some of the non-migrant children in the youngest three age groups belong to some migrants in the oldest age groups.

The aged population in Amman formed 3.4% of the total

sample population, compared with 4.7% in 1966. This may be attributed to the entry of in-migrants particularly those of the 15-59 age groups.

II. Differential Age Structure

Although a high percentage of the sample population of Amman are less than 15 years of age, there are wide differences of percentages between the city sectors. Comparing the age structure of each sector to that of the city as a whole (Fig. 7.1), extreme variations are revealed in juvenility and the child-woman ratio. While in Amman as a whole 46.4% of the total population are under 15 years, 48.9%, 51.5% and 53.3% of the total populations of Yarmouk, Ras EL-Ain and Bader sectors respectively are children (Table 7.2), and only 37.8% and 39.6% in Zahran and Abdali sectors. A similar comparison between the sectors and the city as a whole, with respect to the percentages of children less than 5 years which range from 11.6% in Zahran sector to 17.6% in Ras EL-Ain sector. The highest child-woman ratios are 995 and 926 in Ras EL-Ain and Bader respectively, and although in the City Centre sector 17.0% of the total population are under 5 years of age the child-woman ratio is only 800, much lower than in both Ras EL-Ain and Bader sectors. The lowest percentages of children under 5 years of age are found to be in AL-Naser, Zahran and Abdali sectors (12.3%, 11.6% and 12.5%), where the child-woman ratios are also the lowest, 606, 486 and 513 respectively.

The above figures suggest that the highest child-woman ratios tend to be found in Yarmouk, Ras EL-Ain and Bader sectors, which may be described as the most youthful, while the lowest rates tend to be found in Zahran and Abdali sectors, the most adult-aged (Fig. 7.2). These two sectors have the highest percentages, 57.1% and 57.3%, aged 15-59,

and the lowest percentages of children, under 15 years, 37.8% and 39.6%.

With respect to the aged population, AL-Naser, Yarmouk, Ras EL-Ain and Bader have counted for the lowest percentages of the population over 60 years of age, 2.8%, 3.0%, 3.0%, and 1.8% respectively, while the highest percentages were found to be in Ain Gazal and Zahran sectors, 4.0% and 5.1% respectively.

Table 7.2 Age-Sex Composition of the Main Age Groups of the Sample Population; Percentage of Less Than 5 Years and Child/Woman Ratio in Amman by Sector, 1977

City & Sectors	Less Than 15 Years	Males Per 1000 Females	15 - 59	Males Per 1000 Females	60 and Over	Males Per 1000 Females	Less Than 5 Years % of Total Population	Number of Children Less Than 5 Years Per 1000 Women 15-44
Amman	46.4	1074	50.2	1144	3.4	1587	14.7	733
City Centre	46.1	1000	50.1	1077	3.8	933	17.0	800
Basman	47.5	1051	48.5	1115	4.0	1649	14.5	757
Ain Gazal	47.9	963	48.1	1224	4.0	2045	16.1	894
AL-Naser	45.9	1087	51.3	1194	2.8	1667	12.3	606
Yarmouk	48.9	1246	48.1	1166	3.0	1304	15.3	824
Ras EL-Ain	53.3	1124	43.7	1199	3.0	2000	17.6	995
Bader	51.5	994	46.7	1138	1.8	1200	16.8	926
Zahran	37.8	1075	57.1	1178	5.1	957	11.6	486
Abdali	39.6	1073	57.3	1052	3.1	2533	12.5	513

Source : The 1977 Sample Survey

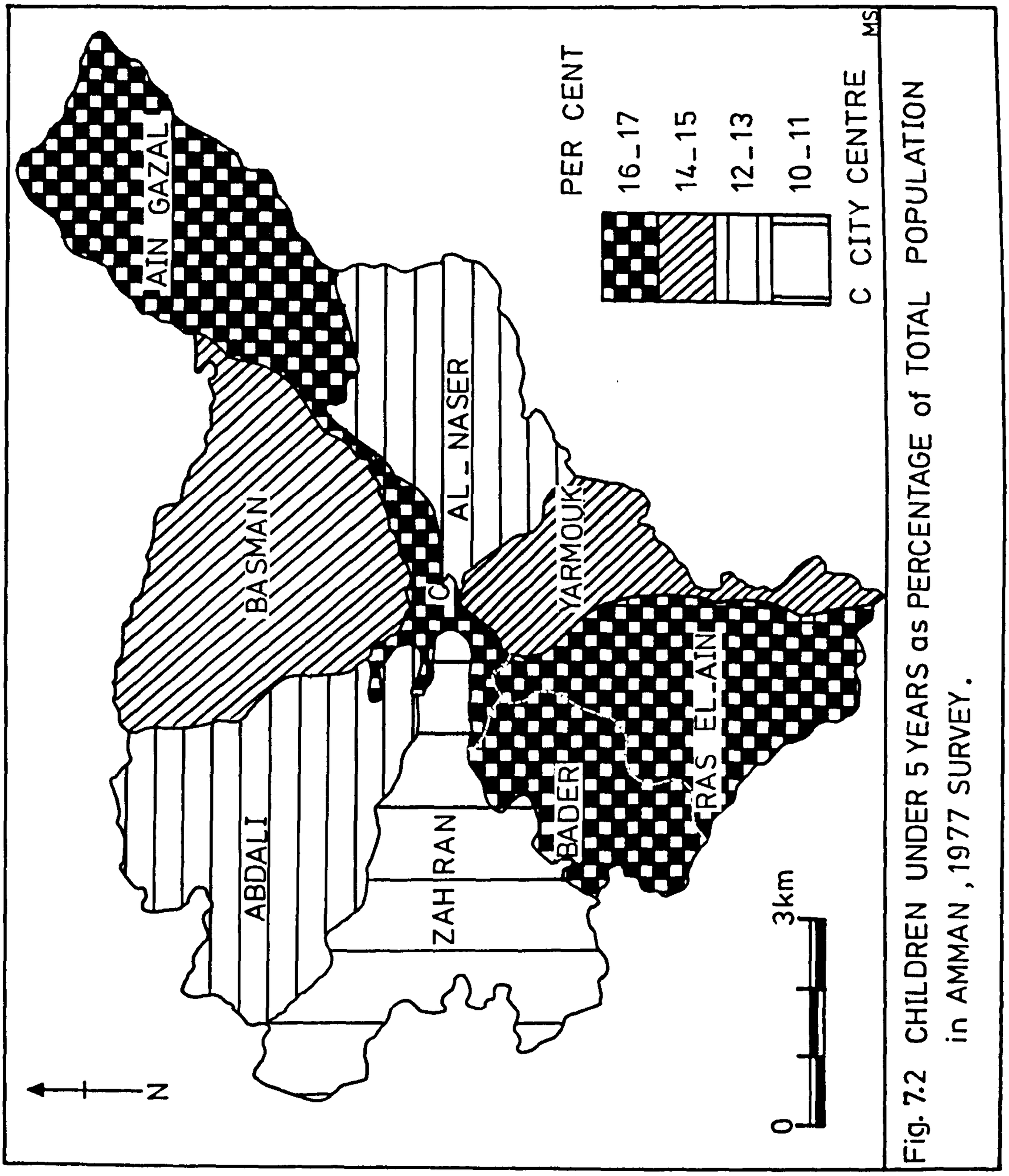


Fig. 7.2 CHILDREN UNDER 5 YEARS as PERCENTAGE of TOTAL POPULATION in AMMAN, 1977 SURVEY.

III. Age Structure Index

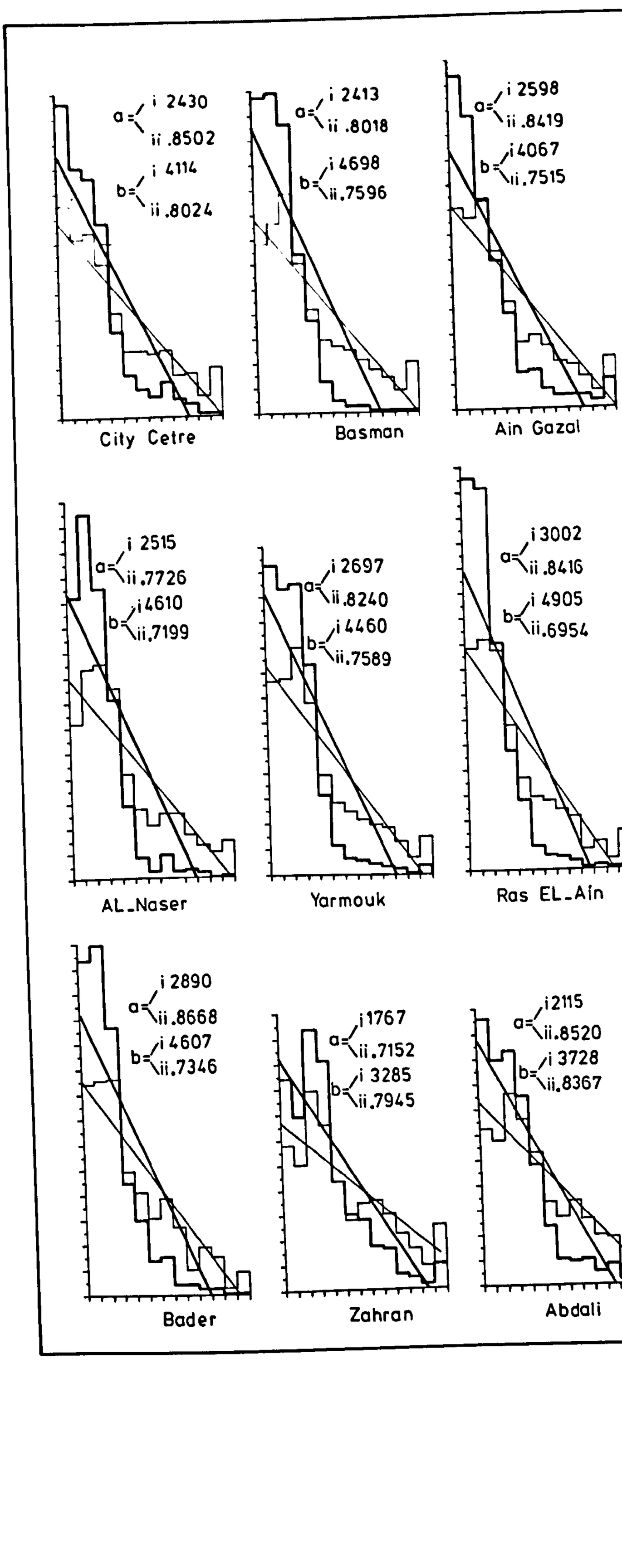
In his method of age structure classification, Coulson (1968) argued that "by using the ideal age structure histograms, the size relationships between age groups can be generalized as straight lines". As a result a young population produces a steeper slope, while an old population produces a flatter line. Thus a measurement of the angle of the line gives the age structure index. Computation of the age structure index is based on the following equation which describes a linear least squares trend line :

$$Y = a + b\ X$$

This method was employed to analyse the age structure indices of Amman Sectors. In each sector the percentages of the population in each age group (Y) was plotted against the middle age of each group (X). **a** is a constant representing the value of Y, when X equals zero, while **b** is the regression coefficient and is a measure of the angle of the slope of the least squares trend lines. The value of **b** is thus an age-structure index for each sector.

The index values do not represent classes of age structure therefore but steps across the range of the continuum. The nine index values exemplify the range of the age structure index as geographically portrayed in Figure 7.3. Each population pyramid has been turned on its side as a histogram and the per cent of the total population is graphed. In addition, the least squares trend line which determines the index value is shown.

The index values for the nine sectors of the city were arranged in Figure 7.4a, which reveals high coefficients of



i Age Structure Index Value

ii Coefficient of Determination

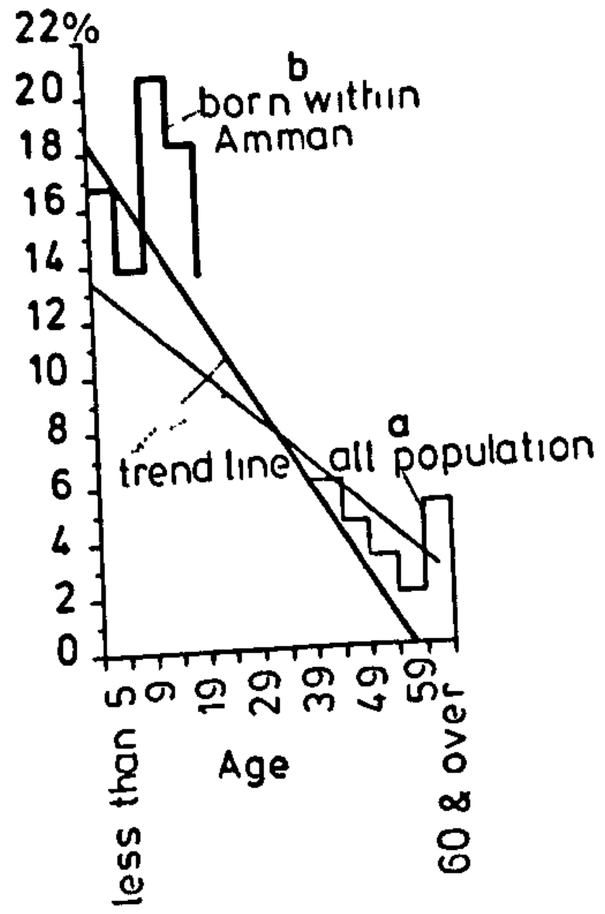


Fig. 7.3 HISTOGRAMS of the AGE STRUCTURE of the POP_LATION of AMMAN, 1977. *

*1977 SURVEY DATA

determination for the nine sectors. Although Coulson suggests that values with high coefficients of determination offer little chance for contrasting age structures, some variation does appear between certain sectors of Amman. The number 17670 is a value on the index scale representative of older (but not abnormally so) age structures, and this is the index value for Zahran sector which counted for 5.1% of its population 60 years of age and over. This resulted in a flatter line, which means an older population is generalized for this sector. Zahran sector, lying in the western part of the city, consists of Jabal Amman, Abdoon, Um Uthaina and Suweifieh units, the area between Jabal Weibdeh and Shmeasani units in Abdali sector to the north and Jabal AL-Akhdar and Nazzal in Bader sector to the south, and extends in the west to meet the outer ring-road of Amman. This sector represents the best residential quarters in the city and the wealthiest, most westernized people. In other words, this sector contains the upper class in the socio-economic hierarchies in the city as defined by the 1966 social survey. Although there are a considerable number of migrants in this sector, where one might expect a high percentage of children, Figure 7.1 does not show this to be the case. This may be a result of these people being the wealthiest migrants into Amman.

The number 24307 is the index value for the City Centre sector. Compared with Zahran sector, the index value (Fig.7.4a) suggests that the population of the City Centre sector (the oldest part in the city) are younger than in Zahran sector. Coulson noted that the older the parts of the city the older their age structures and vice-versa. Clarke (1972, 73), however,

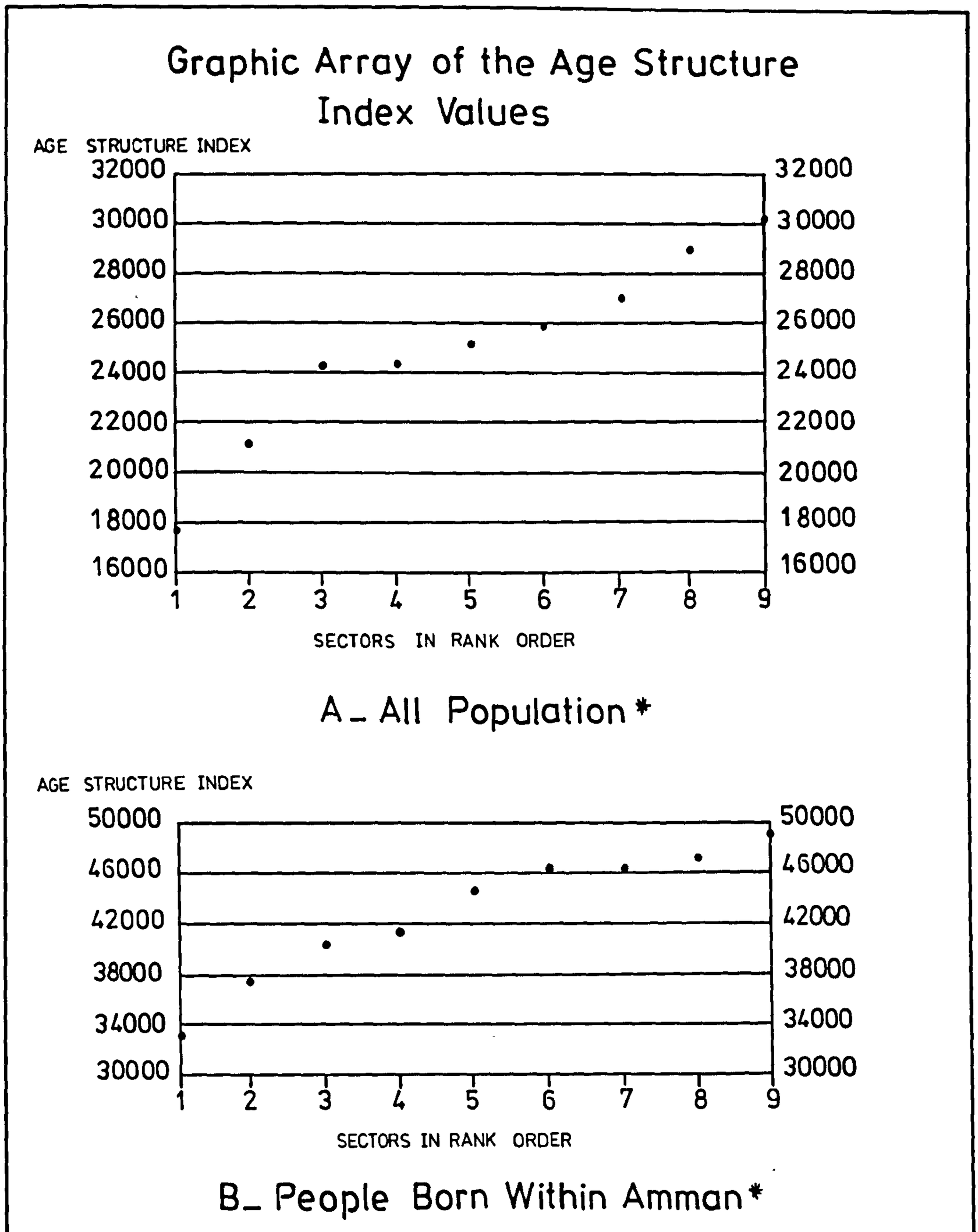


Fig. 7.4 The Distribution of Age-Structure Values Over the Range of the Index.

*1977 SURVEY DATA

argued that "there are exceptions, as in the wealthier suburbs where the aged are more common". This is certainly true in the case of Amman as we have seen above in the comparison between the City Centre and Zahran sectors.

The number 25153 is a value on the index scale representative of the mean age structure (24923). This is the index for AL-Naser sector which lies on the eastern part of the city between Ain Gazal sector in the north east and Yarmouk sector in the south east. People of all ages are well represented here, but the percentages of the population under 5 years are less than any other sector in the city except in Zahran sector.

The number 30021 is a value on the index scale representative of youthful age structure for Ras EL-Ain sector which lies in the southern part of the city between Yarmouk in the east and Bader sector in the west. In fact, uncontrolled settlements are one of the main characteristics of this area. The physical character of the population of this area is mirrored in its age structure histogram. The youthfulness of the population is spread across all three childhood age groups. Thus whereas 17.6% of the total population are under 5 years of age, 52.4% are under 15 years of age. Figure 7.5 shows that the populations range from the youngest in Ras EL-Ain sector to the oldest in Zahran sector.

However, the above analysis of the spatial distribution of the age structure index in Amman based on Coulson's method has led to some suggestions concerning the method itself.

1. With regard to the interpretation and analysis of the age structure within the census tracts of the large cities, Coulson has mentioned that none of the investigated techniques

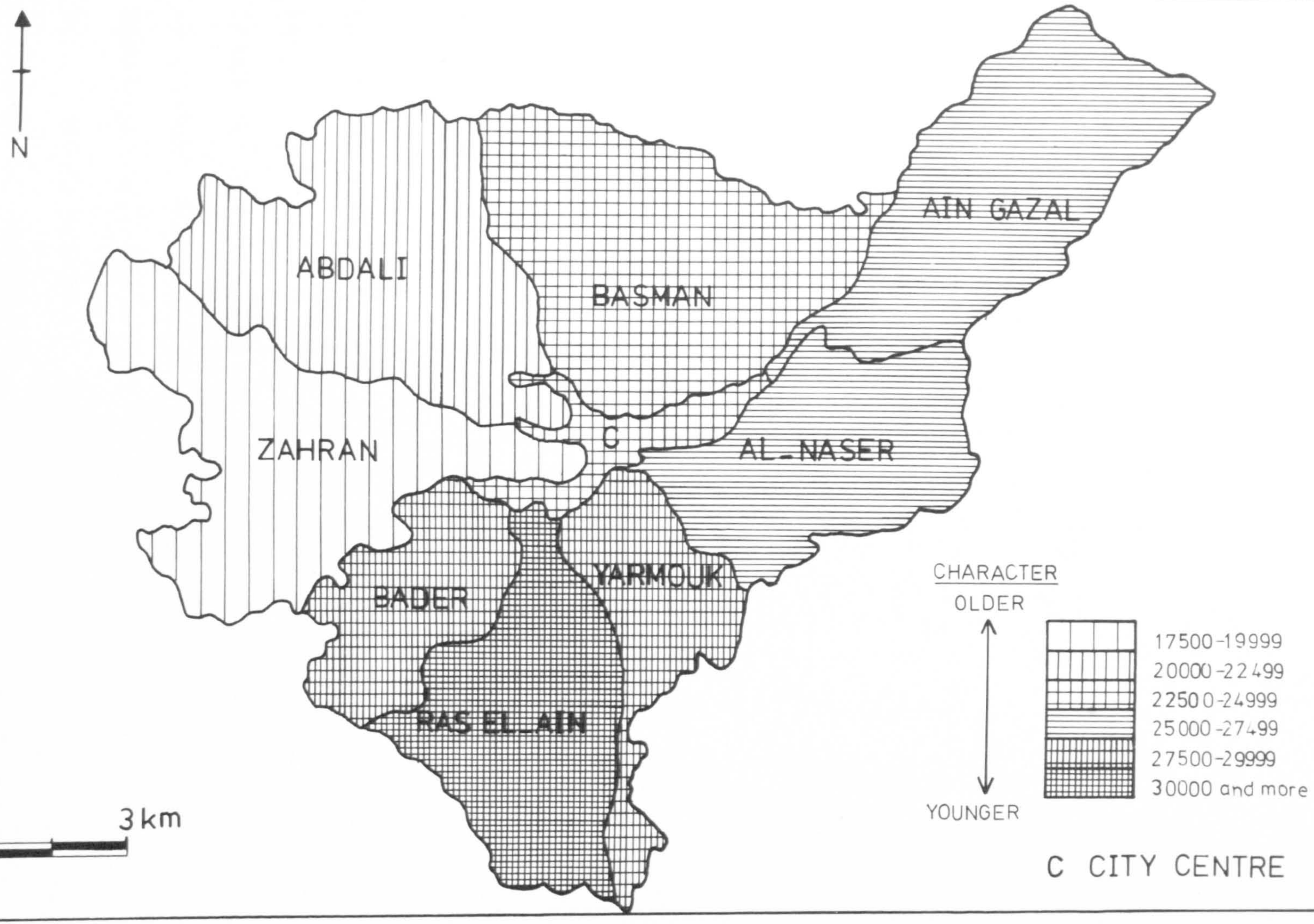


Fig. 7.5 AGE STRUCTURE INDICES IN AMMAN, 1977.*

* 1977 SURVEY DATA

were adequate for that purpose. Instead, he used the age structure index as a method of classification, and this has also been employed in this study. In this respect it may be suggested that Coulson has ignored the fact that the age structure of the population within the large cities can be interpreted and analysed by mapping the percentages of its main groups, or by mapping the age index. This can be also mapped for smaller cities and even counties or districts (see People In Durham - A Census Atlas, ed. by Dewdney and Rhind, 1975). By mapping the age structure index and the percentages of the main age groups for each sector in Amman, it can be shown that great similarity exists between the two. In addition the population pyramid for each sector can be plotted within its areal unit on the map of the city, and then a comparison between the various age structures of the populations of the city sectors can be studied. This produces similar results to those obtained by the use of the age structure index (Figs. 7.1 and 7.2).

2. Coulson generalized that the older the parts in the city, the older the age structure of the populations of these parts, but this does not always seem to be true. In the case of the sectors of Amman, as we have seen already, the age structure index for the City Centre sector (the oldest part of the city) is younger than that of Zahran and Abdali sectors (the newly developed sectors).

3. With regard to the relationship between some other demographic variables, particularly migration, and the age structure index, Coulson has found that "direct relationships between age structure of the Irish, Italian and Mexican foreign

stock in the city (Kansas) is opposite to that hypothesized". In this respect, by mapping the distribution of migrant households in the city sectors of Amman, it is found that Zahran sector (which accounted for the lowest percentages of children under 15 years of age of the city sectors) is the least receptive sector for migrant households. Therefore, the relationship between migration and the age structure seem to be interpreted better by mapping the percentages of both the age structure and the migrant households in each sector.

Nevertheless, it is better to use more than one method in academic research, so that more clarification of the phenomenon concerned may be obtained.

Age structure indices of migrants, non-migrants.

An attempt has been made to analyse the age structure indices of the migrants and non-migrants in each sector of the city. In fact the age structure index values for migrants in each sector record very low coefficients of determination. A range of values of these was found between 0.01373 (for Yarmouk sector) and 0.22968 (for the City Centre sector), which is below the 5% significance, i.e. below 0.4436 (Fig. 7.6). As a result, a linear least squares trend line fails to describe the migrants age structure. The following reasons may give an explanation : First, the migrant age group pyramids are irregular (Fig. 7.1). Secondly, migrants are here identified by the birthplace, whether they were born in or outside Amman. The migrants' children who were born in Amman were counted as non-migrants, and this has affected the migrants age structure (See page 187).

As a contrast the non-migrants age structure index values with high coefficients of determination (Fig. 7.4b), revealed the fact that the non-migrants in each sector are characterized by an extreme youthfulness (Fig. 7.3), where the linear least squares trend lines are very steep. The lowest age structure index values among non-migrants were 0.32857, 0.37285 and 0.40604, in Zahran, Abdali and Ain Gazal sectors respectively, which means high percentages of aged non-migrants in these sectors. Furthermore, Figure 7.3 shows that the linear least squares trend lines of the histograms of the non-migrants are steeper than those of the combined migrants/non-migrants histograms in each sector. This may explain to a large extent why the percentage of aged population among migrants is higher than those of the non-migrants. It is quite clear from Figure 7.3 that Basman, AL-Naser, Yarmouk, Ras EL-Ain and Bader sectors have received the largest number of aged migrants.

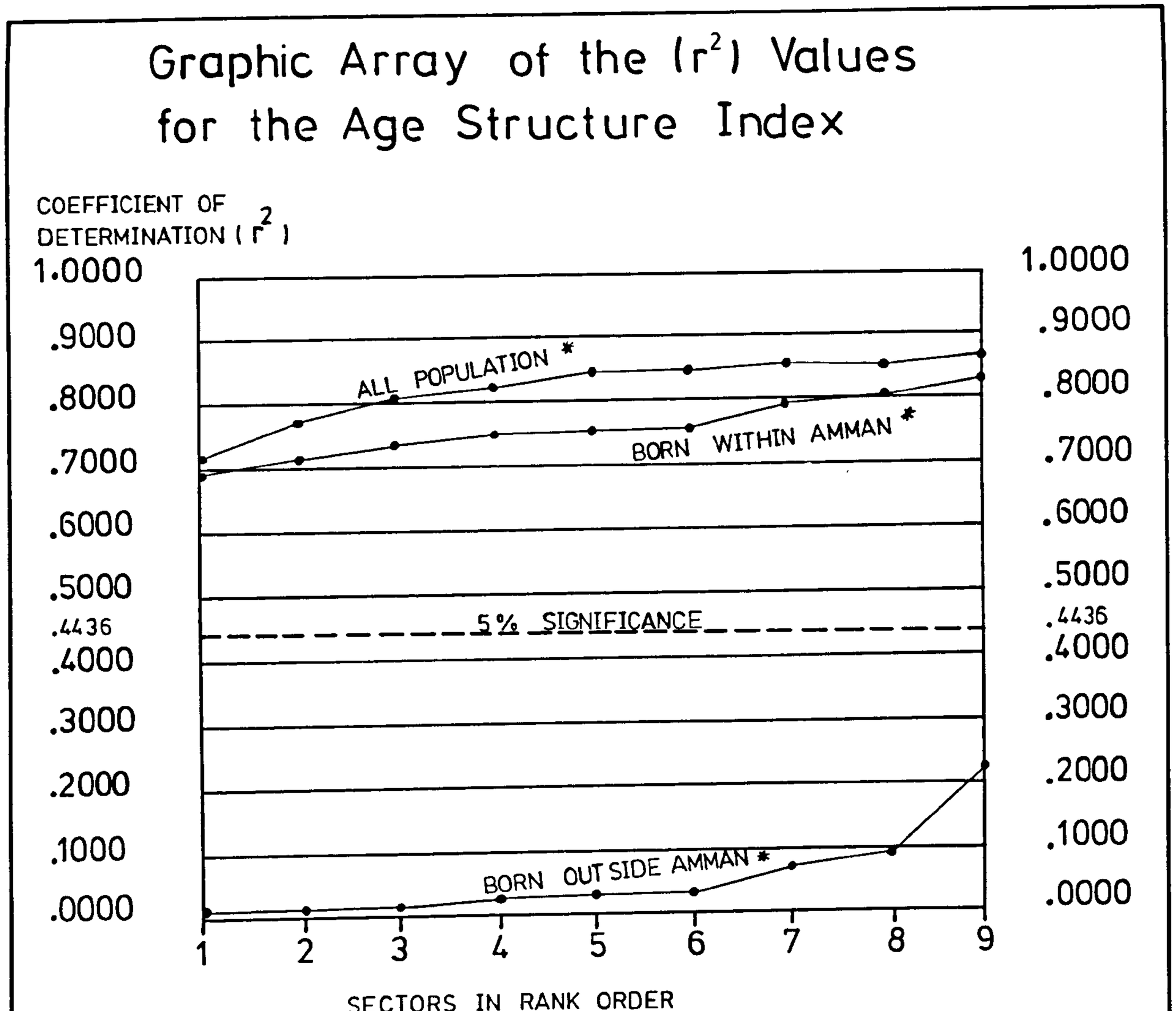


Fig. 7.6 The Significance Test of the Coefficient of Determination of the Age Structure Index.

*1977 SURVEY DATA

IV. The Sex Ratio of the Population of Amman

The sex composition is presented in Figure 7.1 which shows a preponderance of males in the age groups under 24 years, and a majority of females in the 25-39 age groups. In the age groups 40 and over the preponderance of males is much higher than that in the age groups less than 24 years. It is clear from Table 7.3 that Amman contains a high preponderance of males. The 1977 sample survey shows 1,124 males per 1,000 females (see Table 7.1), similar to that of 1961 (1,129), and higher than that of 1966 (1,051).

The effects of migration show up more clearly with respect to the sex composition. Although migration to Amman is characterized by a household movement more than a selective individual movement, Figure 7.1 and Table 7.4 indicate a high proportion of male migrants since the migrant sex ratio of 1,122 is very similar to that of the whole population of the city. This means that male migration to Amman has been particularly heavy, and is perhaps the reason for a high sex ratio in Amman.

However, the differentials of sex ratio do not operate uniformly throughout the age structure as shown above. Reflecting the combined effects of differentials in sex ratio at birth, which favour males, and the preponderance of male migrants, the sex ratio tends to be irregular among different age groups. On the other hand, the high proportion of male migrants to Amman is clearly evidenced in the excess of males with regard to females in the ages of 15-19, 20-24 and over 40 years of age. This is surprising because migratory movements usually favour males of age groups 25-39 years. The

sex ratio of these age groups in Amman indicate a prepond-erance of females : 943, 951 and 885 males per 1,000 females respectively (Table 7.3). This may be explained partly by out-migration from Amman to other countries, particularly those who migrated to Amman from other parts of the country (especially from the West Bank), and then moved to other Arab countries such as Kuwait and the Gulf States and Saudi Arabia. The 1974 Household Survey showed that 73% of the Jordanians abroad were belonging to households living in Amman district. Out of these there were 88% males and only 12% females, i.e. a sex ratio of 7,333 males per 1,000 females (D.S., 1976).

In the age groups 40 years and over men outnumbered women (Table 7.3) by nearly three to two. This is anomalous, for in most populations the sex ratio for the older age groups favours females. It should be mentioned here that the 1961 census and the 1966 social survey also indicated the prepond-erance of males in the older age groups (Table 7.1). Neither the 1961 census nor the 1966 social survey gave any explanation of that phenomenon, but an explanation is tentatively suggested here, by referring to the migrants sex ratio and the age structure of the population in the 1977 sample survey. First, many women seem to accompany their husbands on the move to Amman, thus adding to the relatively large percentage of young adults and thus reducing the proportion of the older female group. Secondly, it may be argued that in the past female mortality as of certain age groups surpassed male mortality even more than today.

Among the three broad age groups of the population, less than 15 years, 15-59, and 60 and over in each sector in

the city, the sex ratio varies slightly. Male children outnumber female children except in Ain Gazal and AL-Naser sectors probably because male births exceed female births. In the age groups 15-59 years the males outnumber the females in each sector, and this is attributable to the migration influence mentioned earlier. The highest sex ratio of 1,224 males per 1,000 females was found in Ain Gazal sector (Table 7.2), which may be explained by the fact that this area attracts the male labour force, since light industries were established there twenty five years ago.

Females over 60 years of age predominate only in the City Centre and Zahran sectors, while Ain Gazal and Ras EL-Ain sectors recorded sex ratios of two to one and Abdali sector recorded 2.5 to 1. Again, the migration factor could be responsible here, except in Ain Gazal sector, as one might expect, where a semi-industrial estate attracts the adult male population who tend to live near their place of work and settle permanently.

Table 7.3 Age-Sex Composition of the Sample Population of Amman, 1977

Age Groups	Number of Inhabitants			Percentages			Sex Ratio Males per 1000 Females
	Total	Males	Females	Total	Males	Females	
0-4	1821	956	865	14.7	7.7	7.0	1105
5-9	1856	954	902	14.9	7.7	7.2	1058
10-14	2091	1077	1014	16.8	8.7	8.1	1062
15-19	1590	916	674	12.8	7.4	5.4	1359
20-24	1061	570	491	8.6	4.6	4.0	1160
25-29	715	347	368	5.8	2.8	3.0	943
30-34	681	332	349	5.5	2.7	2.8	951
35-39	656	308	348	5.3	2.5	2.8	885
40-44	551	298	253	4.4	2.4	2.0	1177
45-49	429	231	198	3.5	1.9	1.6	1166
50-54	357	209	148	2.9	1.7	1.2	1412
55-59	181	109	72	1.4	0.8	0.6	1513
60 and over	432	265	167	3.4	2.1	1.3	1587
Total	12421	6572	5849	100.0	53.00	47.00	1124

Source : The 1977 Sample Survey

Table 7.4 Age-Sex Percentages of the Migrants Population of Amman, 1977

Age Groups	Migrants			Percentage of total Population			Sex Ratio Males Per 1000 Females
	Total	Males	Females	Total	Males	Females	
0-4	88	51	37	0.8	0.5	0.3	1378
5-9	186	97	89	1.2	0.5	0.7	1089
10-14	645	326	319	5.2	2.7	2.5	1022
15-19	622	369	253	5.1	3.0	2.1	1458
20-24	552	277	275	5.0	2.7	2.3	1007
25-29	500	235	265	4.1	1.9	2.2	887
30-34	543	263	280	4.5	2.2	2.3	939
35-39	555	269	286	4.5	2.2	2.3	940
40-44	463	247	216	3.7	2.0	1.7	1143
45-49	379	205	174	3.1	1.7	1.4	1178
50-54	307	174	133	2.5	1.4	1.1	1308
55-59	168	103	65	1.3	0.7	0.6	1585
60 and over	381	234	147	3.1	1.9	1.2	1592
Total	5.389	2850	2539	44.1	23.4	20.7	1122

Source : The 1977 Sample Survey

V. Dependency Ratio

Although Amman is a city of migrants, in which one may expect a low dependency ratio, the 1977 sample survey figures show a high dependency ratio because of the youthfullness of the population and the high fertility rate. This is in spite of the fact that the population between 15 and 59 years of age in Amman forms 50.2% of the total population which is higher than that of 44.3% for the country.

In fact, not all the population 15-59 years are economically active, particularly among females. On the other hand, a substantial fraction of the population aged 15-19 and of retirement age are economically active. In discussing the active population of Amman later in Chapter 8 we will see that the dependency load which this population must bear is very heavy. Table 7.5 reports the crude dependency ratio for each sector and for the city as a whole. According to this measure, there are about 100 dependents for each 100 persons in the productive ages, 93 of these are children and youths, and 7 are in the old age category. The less youthful sectors AL-Naser, Zahran and Abdali, have a much lower dependency load than do the more youthful sectors, Basman, Yarmouk , Ras EL-Ain and Bader. The ratio varies from 75 in both Zahran and Abdali Sectors to 129 in Ras EL-Ain sector. This difference is directly related to the youth proportion of the dependency ratio. In Zahran and Abdali sectors the youth dependency proportions of their total dependency ratios are 66 and 69 respectively. By contrast Ras EL-Ain and Yarmouk sectors have accounted for the highest youth dependency proportions of their total dependency ratios (122 and 110 respectively), which means that the productive population in these two sectors

are forced to carry a heavier load of dependent youth than those in any other sector in the city because of the high fertility rates.

With respect to the proportion of old-age dependency, the population of Zahran sector has the heavier load, i.e. more than double the proportion of the old-age dependency in Bader sector. On the other hand, although AL-Naser and Abdali sectors have low dependency ratios, their proportions of old-age dependency are lower than those in the City Centre, Basman and Ain Gazal sectors. This may be attributable to the effect of migration, where a large proportion of the adult migrants entered the middle age groups of AL-Naser and Abdali sectors.

A number of studies have suggested that high fertility usually leads to a population structure heavily weighted in the young dependent group with relatively fewer old dependents. Low fertility, by contrast produces a structure in which the older proportion is relatively high and the youthful is relatively few. In fact, Zahran sector typifies the latter condition, and Ras EL-Ain and Yarmouk the former.

Compared with that ratio of 98 for the 1961 census, the dependency ratio for the population of Amman had risen to 106 in 1966 and had fallen to 100 by the time of the 1977 sample survey. The figure of 1977 was affected by migration more than that of the 1966, since the proportion of old-age dependency in the first was 7, while it is 10 in the later.

However, the dependency ratio for the population of Amman suggests that a heavy burden of dependency has to be carried by the productive population. This burden seems to

Table 7.5 Crude Dependency Ratio for the Sample Population of Amman, 1977, by Sector

City and Sectors	Dependency Ratio (1)		
	Total	Youth	Old Age
Amman	100	93	7
City Centre	100	92	8
Basman	106	98	8
Ain Gazal	108	100	8
AL-Naser	95	90	5
Yarmouk	108	102	6
Ras EL-Ain	129	122	7
Bader	114	110	4
Zahran	75	66	9
Abdali	75	69	6

(1) Dependency Ratio Refer to :

$$\frac{\text{Population Less than 15 + 60 \& Over}}{\text{Population 15-59}} \times 100$$

Source : The 1977 Sample Survey

increase due to the high fertility rate.

Conclusion

The above discussion with regard to the age-sex structure and the dependency ratio of the population of Amman affirms its youthfulness as a result of a high fertility rate and the familial migratory movement. However, the age structure's spatial distribution suggests some variations between the city sectors. These can be summarized as follows :

(a) The low fertility rates, low percentages of children less than 15 years, and low dependency ratios are the characteristics of the populations of the western and north western sectors in the city.

(b) The populations of the northern, eastern and southern sectors are loaded by a heavy burden of children due to high fertility rates and characterized by a remarkable youthfulness.

The impact and consequences of such a very young population are enormous. They cover almost all facets of life in the city of which housing problems, education costs and difficulties are particularly important. Also the dependency ratio indicates that the city has to face a huge challenge in the task of education and eventually in providing adequate employment opportunities.

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CHAPTER EIGHT

MARITAL STATUS AND HOUSEHOLD STRUCTURE

I. Marital Status

Contrary to frequent belief, migration and urbanization have not yet affected, to any great degree, marriage habits in Jordan. In the towns as well as in the country-side it is still customary to marry early and the conjugal distribution of the rural and urban population is consequently very similar (D.S., 1966 and 1976). For the most urbanized place in the country, it was expected in 1961 that a visible tendency toward later marriage of males as well as females should have existed, but in fact the marital structure in Amman was much the same as in the country as a whole. However, with regard to the marital patterns in Amman, the 1977 sample survey shows a significant difference from that of the 1961 census. On the other hand, it suggests that the marital patterns in Amman in 1977 are different from those of the country as a whole in 1974 (Tables 8.1 and 8.4). The marriage age has been increasing steadily since 1961. In Amman the 1961 census indicated that 63% of the males in the age group 20-24 were single, while in 1977 it increased to 89%. This increase was even more obvious among the single females of the same age group; it increased from 25% in 1961 to 50% in 1977. Thus the percentage of single females 20-24 years in Amman has doubled since 1961 (Table 8.1).

This trend toward later marriage could be attributed to the improvement of the education level, and to the number of females (although small) now entering the labour force. In

1961 only 10% of the active population of Amman in the age group 20-24 were females, while in 1977 females formed 20% of that total. On the other hand, the difficulty in finding jobs for the males who are at the beginning of the working age could be another factor affecting the later age of marriage. Furthermore, the tendency towards later marriage normally arises from specific social and economic conditions associated with city life as prolonged education and training, exclusive dependency on cash income, higher cash expenditure, housing shortage, high rents. Such conditions prevail without doubt in Amman, particularly in the mid-1970's.

The 1974 household survey for the East Bank revealed the fact that marital patterns in the country are different from those of Amman in 1977. The figures in Table 8.1 suggests that throughout the age groups 15-34, the percentages of the single males and females are higher in Amman than in the country as a whole. In this respect it may be mentioned that although in the rural areas the lack of job opportunities leads to a decrease in labour force, this does not appear to cause later marriage.

In his paper on "the Demography of Bangkok", Goldstein (1973) noted that the single population outnumber the married in the movement to the city. By contrast, in Amman the married outnumber the single among the migrants, and vice-versa among the non-migrants. This is due to the fact that migration to Amman is characterized by a family pattern (Table 8.2). This suggests that strong family ties are evident in Amman, while Bangkok has attracted those without immediate family ties, the result of which was that 25% of the married were living without their spouses.

Table 8.1 Percentage Single Population in the Age Groups 15 - 34 in Amman, 1961, 1977, and in Jordan, 1961, 1974

Year	MALES				FEMALES			
	15-59	20-24	25-29	30-34	15-19	20-24	25-29	30-24
Amman 1961 Census (a)	97	63	26	11	69	25	13	6
Amman 1977 Survey (b)	99	89	47	16	88	50	21	9
Jordan 1961 Census (a)	97	64	26	11	72	27	11	6
Jordan 1974 Household Survey (c)	99	82	41	11	84	43	18	8

Sources : (a) D.S., 1964, Vol. 1, p.60
(b) The 1977 Sample Survey
(c) D.S., 1976, Table 2

Table 8.2 Number of Single and Married Persons Aged 15 Years and Over of Migrants, Non-Migrants in Amman, 1977

Sex	Born Within Amman		Born Outside Amman	
	Single	Married	Single	Married
Males	896	309	763	1,586
Females	570	376	401	1,527
Total	1,466	685	1,164	3,113

Source : The 1977 Sample Survey

Amman follows the general pattern of marriage in that it takes place much earlier among females than it does among males. This also applies to the individual sectors in the city. The marital status of the females is presented in Table 8.3, where great differences appeared between sectors, particularly among the 15-24 age group. In the 15-19 age group, females marry early in Ain Gazal, Ras EL-Ain and Bader sectors, while they marry late in other sectors, especially in Abdali sector. Similarly a wide difference appeared in the age group 20-24, where the lowest percentage of the unmarried was 24% in Bader sector, and the highest was 78% in Abdali sector, i.e. more than three times the former. Moreover, in the age group 25-29 about 90% of the females were married in Ras EL-Ain sector, while only 55% in Abdali sector, In fact, migration is responsible for the high proportion of the single population in the age group 20 - 29 in Abdali sector for both sexes. This sector seems to have attracted more male migrants than any other sector in the city, since there are 79% of the population in the age group 25 - 29 unmarried.

Table 8.3 Percentage Single Females Aged 15-44 of the Sample Population in Amman, 1977, by Sector

City and Sectors	15 -19	20-24	25-29	30-34	35-39	40-44
Amman	88.0	50.0	21.0	9.0	3.3	2.9
City Centre	95.0	25.0	34.8	21.0	5.0	3.8
Basman	88.0	45.3	14.0	6.7	2.9	2.2
Ain Gazal	78.5	40.6	11.6	6.8	6.5	2.7
AL-Naser	88.8	56.4	14.3	0.0	0.0	5.0
Yarmouk	85.0	50.0	20.0	10.3	5.4	0.0
Ras EL-Ain	84.2	33.3	7.7	0.0	0.0	0.0
Bader	80.0	24.0	18.0	8.3	0.0	0.0
Zahran	89.4	57.6	28.0	16.2	0.0	4.3
Abdali	78.3	44.8	14.0	14.0	5.4	2.2

Source : The 1977 Sample Survey

Divorcees and widowed persons form a small proportion of the population of Amman 15 years and over. Table 8.4 shows that 0.3% of the sample population in Amman in 1977, 15 years and over, were divorced, which is similar to that of the country in 1974. The number of the widowed persons was found to be larger in the country than in Amman. It should be noted that most of the divorced and widowed population in Amman are living either with their married sons, or with their relatives, which is very common in Jordan as a whole.

Table 8.4 Marital Status of the Sample Population in Amman 1977, and of the Sample Population in Jordan 1974 (15 Years and Over)

Marital Status	Amman, 1977 Survey (a)		Jordan, 1974 Household Survey (b)	
	Number	Percentage	Number	Percentage
Single	2630	39.7	20316	33.5
Married	3798	57.0	37365	61.5
Divorced	22	0.3	213	0.3
Widowed	203	3.0	2852	4.7
Total	6653	100.0	60,746	100.0

Sources : (a) The 1977 Sample Survey

(b) D.S., 1976, Table 2.

II. Patterns of Households

Although the average household size in Jordan may be considered among the highest in the developing countries (Table 8.5), its capital accounted for even a higher average. This may be attributable to the effect of the migratory movement on the household size, as we have seen already in Chapter Six. In comparison, in Chile the average household size is 5.1, while that of its capital, Santiago, is 4.9 i.e. less than that of the country as a whole. (Elizaga, 1966).

Table 8.5 Average Household Size in Amman, Jordan and Some Developing Countries

Amman And Countries	Amman (a)	Jordan (b)	Kuwait	Thailand	Morocco	Saudi Arabia (c)	Iran	Zambi
Average Household Size	7.13	6.3	6.2	5.8	5.4	5.0	5.0	4.6

Sources: (a) The 1977 Sample Survey
(b) D.S., 1976, Table 3
(c) Matthew, 1972, 42
Other Countries: Demographic Year Book, 1976 Table 42.

From data collected in the 1977 sample survey the average size of household has been calculated as 7.13 for the city as a whole. Major differences appear when this figure is compared to those of 1958, 1961, 1966 and 1971, where the average household size was 6.6, 5.8, 6.64 and 6.5 respectively. It is somewhat surprising that the average household size in 1977 is much higher than that in the previous years (Table 8.6). Moreover, the average household size in Amman is higher than that for the country as a whole in 1974.

Table 8.6 Household Size in Amman, 1958, 1966 and 1977

Household Members	Percentages of Households											
	Amman			The City Sectors, 1977 (c)								
	1958 (a)	1966 (b)	1977 (c)	City Centre	Basman	Ain Gazal	AL-Naser	Yarmouk	Ras EL-Ain	Bader	Zahran	Abdali
1-5	40	38	31	33	30	31	26	20	18	22	50	40
6-9	44	47	49	48	50	47	50	57	50	44	44	48
10 and over	16	15	20	19	20	22	24	23	32	34	6	12
Total	100	100	100	100	100	100	100	100	100	100	100	100
Av. Hse.hld Size	6.60	6.64	7.13	6.62	7.19	7.32	7.43	7.69	8.13	7.84	5.67	6.47

Sources : (a) Hacker, 1960, Table 7.3
(b) UNESOB, 1970, Table 28
(c) The 1977 Sample Survey

However, it was expected in 1977 that the percentage of large households in Amman would be lower and the percentage of small households would be higher, but this is not the case if we compare the figures of 1977 with those of 1958 and 1966. The large households in 1977 increased by 5% over the last ten years, compared to a decrease of 1% between 1958 and 1966. On the other hand, the small households decreased by 7% in the same period (Table 8.6). This variation of household size may be attributed to migration, particularly that resulting from the 1967 June war. Also the economic situation and housing shortage in the early 1970's may have forced many young couples to continue living with the family of the husband, thus increasing the number of large households.

With regard to the spatial variation of the average household size in Amman, Table 8.6 also shows that the average size ranges from 5.76 in Zahran sector to 8.13 in Ras EL-Ain Sector. Also it shows that the percentages of small households in Zahran and Abdali sectors are considerably higher than in any other sector in the city, while the percentages of large households, particularly in Ras EL-Ain and Bader sectors are much higher than in other sectors, even higher than in the city as a whole.

Conclusion

The society of Amman, as well as of Jordan, values marriage highly, particularly for females. In Amman, in the young female age group (15-19) in the 1977 sample, 12% were already married, and in the age group 20-24 half of them have been married. The proportion of the single females

diminishes with the advancement of age, until they become only about 3% in the age group 40-44. However, the 1977 sample survey suggests that the age at marriage has increased since 1961, particularly among females. The most pronounced increase is among the age groups 20-24 and 25-29.

On the other hand, the average household size in Amman in 1977 is found to be higher than in previous years, and even higher than that in the country as a whole. The problems of household have been largely affected by migration to Amman, which increased the average household size. In this respect it was mentioned in the Five Year Plan Housing Sector 1976-1980 that "in cities like Amman and Zarqa, internal migration [1962-1967 before war] has no big impact on the family structural split and consequently over the housing need as an entity" (Housing Corporation, 1976, 12). It may be reasonable to argue that as far as the voluntary internal migration and the forced movement are concerned, it is true that migration has very little effect on family structural split as suggested by the 1977 sample survey, but no doubt that migration has affected the housing needs in the city, since one of its major characteristics is the family movement. On the other hand, the increase of age at marriage may reduce the pressure on the housing need. Nevertheless, if the large household in Amman has been connected with migration, the increase of age at marriage correlates directly to the education attainment. Hence, literacy and education will be the target of the next chapter.

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CHAPTER NINE

LITERACY AND EDUCATION

I. Literacy

Jordan, although a developing country, enjoys the best educational level in the Middle East. Compared with neighbouring Arab countries, in terms of literacy (Table 9.1), the country attained the highest rate amongst the adult population (D.S., 1976, 48). Recently literacy is seen by development economists as a measure of the stock of human capital (Birks and Sinclair, 1978). On this criterion Jordan is one of the more developed countries in the region. On the other hand the level of education in any country, although largely determined by economic, cultural and historical factors, is in several ways related to population growth and structure as well. Rapidly rising demand for education in consequence of high fertility is bound to compete with efforts to raise educational standards.

In this chapter, literacy, educational level and school enrolment in Amman will be discussed to examine the relationship between these and age-sex structure, fertility and migration.

In the 1977 sample survey, 81% of the population of Amman, 15 years and over, were literate, i.e. higher than that of the country as a whole in 1974. The percentage was higher among the age group 15-19, of whom 97% were classified as literate, but declined with age, and among those aged 50 years and over less than half of the population were literate. The literate males outnumbered the literate females in the age groups 15 years and over. The variation is

Table 9.1 Adult Literacy Rates for Selected Countries in the Middle East, 1974

Country	Adult Literacy Rate %
Lebanon	68
Jordan (1)	68
Kuwait	55
Syria	53
Iran	50
Egypt	40
Algeria	35
Iraq	26
Saudi Arabia	15

Source : World Bank, 1978, Table 18. (Quoted in Birks and Sinclair, 1978, 11).

(1) D.S., 1976, Table 4.

very small among the youngest age groups, but tends to widen with age, at least to the 45-49 age-group (Table 9.2).

The number of literates was aggregated in Table 9.3 to make it possible to compare the figures of 1961 and 1966. The percentage of literacy increased from 47% in 1961 to 65% in 1966 and to 81% in 1977. The male percentage increased from 61% to 78% to 90%, and that for females from 30% to 52% to 71%. These figures indicate the rise of literacy and the efforts made by the government to improve education throughout the last 16 years. Also it should be noted that the increase of the literate population may be attributed partly to the recent migration movement, when the new arrivals increased the number of literates. The literacy of migrants and non-migrants is shown in Table 9.4;they

Table 9.2 Percentage Literates of the Sample Population Aged 15 Years and Over in Amman, 1977

Age Groups	Both Sexes	Males	Female
15 - 19	97	98	96
20 - 24	95	97	93
25 - 29	90	96	84
30 - 34	86	95	76
35 - 39	76	95	58
40 - 44	69	88	47
45 - 49	63	86	36
50 and over	48	65	24
15 and over	81	90	71

Source : The 1977 Sample Survey .

Table 9.3 Percentage Literacy of the Population of Amman Aged 15 Years and Over in 1961, 1966 and 1977

Age Groups	(a) 1961 Census			(b) 1966 Social Survey			(c) 1977 Sample Survey		
	Both Sexes	Male	Females	Both Sexes	Males	Females	Both Sexes	Males	Females
15-19	66	78	53	89	94	83	97	98	96
20-24	55	71	37	81	88	73	95	97	93
25-29	50	65	32	70	88	56	90	96	84
30-39	46	63	26	59	80	24	81	95	67
40-49	35	50	17	53	74	30	66	87	43
50 and Over	18	29	6	35	51	14	48	65	24

Sources : (a) D.S., 1964 Vol. 1, p.222
(b) UNESOB, 1970, Table 9
(c) The 1977 Sample Survey

tend to be very similar among age groups 15-34, but more different among the older age groups.

In the 1966 social survey it was concluded that "it is probably that migrants to Amman had increased the percentage of literacy, since in 1961 about 55% of the population in the age group 20-24 were literate, and these had to be counted in 1966 in the age group 25-29, where 70% of the population were literate" (UNESOB, 1970, 54). This conclusion was based on the assumption that at the 1961 census the percentage of literacy was higher in other parts of the country than it was in Amman, particularly in the West Bank, which is considered as the main source of migrants to the capital. This may be true to some extent if we consider the percentage of literacy for the age group 20-24 in 1966 which is 81%, and compare it with that of 86% for the age group 30-34 in 1977 (see Tables 9.2 and 9.3).

Although migration to Amman increased the number of literates in the city, it is obvious from Table 9.4, that the percentages for those who were born in the city are higher than that for those who were born outside the city, where low percentage of literacy is a remarkable feature of older generations.

The variation between the city sectors, with regard to literacy, is illustrated in Table 9.5 . More than nine-tenths of the population aged 15 years and over in Zahran and Abdali sectors are literate, over four-fifths in the City Centre and Yarmouk sectors, and about three-quarters in Basman, Ain Gazal, AL-Naser, Ras EL-Ain and Bader sectors.

Although there is a pattern of high literacy among males

Table 9.4 Literacy of the Sample Population Aged 15 Years and Over in Amman, 1977, by Place of Birth

Age Groups	Number of Literate		Percentage	
	Born In Amman	Born Outside Amman	Born In Amman	Born Outside Amman
15-19	950	601	98	97
20-24	487	526	96	95
25-29	203	438	94	88
30-34	117	467	85	86
35-39	83	413	82	74
40-44	67	315	76	68
45-49	37	235	74	62
50 and over	60	410	53	48
15 and over	2005	3405	92	76

Source : The 1977 Sample Survey

throughout the city sectors, female literacy is more varied spatially. The highest female literacy percentages of 92% and 87% are to be found in Zahran and Abdali sectors, and the lowest of 61%, 62% and 63% in Bader, Ain Gazal and Ras EL-Ain sectors respectively. Three-quarters of the females in the City Centre sector are literate and two-thirds of the females in AL-Naser and Yarmouk sectors are literate.

The difference between male and female literacy is very small in the sectors which obtained more educational developments, and larger in the sectors with less educational developments, because educational opportunity in the past was biased towards the male population.

Female literacy rates of the sectors are very interesting if compared with the child/woman ratios, as they are inversely related. Ras EL-Ain, Bader and Ain Gazal accounted for the highest child/woman ratios in the city, 995; 926 and 894 respectively, but the lowest percentages of literate females. By contrast, Zahran and Abdali sectors accounted for the lowest child/woman ratios, 486 and 513, and the highest percentages of literate females, 92% and 87% respectively (Table 9.5).

Table 9.5 Literacy in Amman and Sectors, of the Population 15 Years and Over, and Child/Woman Ratios, in 1977

City and Sectors	Literacy %			Child/Woman Ratio (1)
	Both Sexes	Males	Females	
Amman	81	91	71	733
City Centre	84	92	75	800
Basman	75	86	63	757
Ain Gazal	75	87	62	894
AL-Naser	79	89	67	606
Yarmouk	81	91	69	824
Ras EL-Ain	78	90	63	995
Bader	78	93	61	926
Zahran	94	97	92	486
Abdali	92	96	87	513

Source : The 1977 Sample Survey

(1) $\frac{\text{Number of Children Less than 5 Years}}{\text{" " Women Aged 15-44}} \times 1000$

II. Educational Level

The data presented in Table 9.6 show the levels of education for the sample population aged 15 years and over in Amman in 1977. The periods spent at the main educational levels in Jordanian educational institutes are as follows :

School Level	Length of education
1. Elementary	6 Years
2. Preparatory	3 Years
3. Secondary	3 Years
4. *Higher Education	4 Years

* Including teacher training institutes (2 years after secondary)

The percentage for each category represent those who had either completed that level or still attending school, and those who started that level but did not complete their studies. For example, there is a considerable number who completed only 2 or 3 years of the elementary level, particularly among the older age groups. It should be noted here that those who were counted under preparatory level, should have completed the elementary level, and those classified in the higher educational level should have completed the first three levels.

The contrasts by age groups with regard to the educational level are very marked. More than half of the population in the age groups aged 50 years and over did not achieve any education level, and only 21% passed the elementary level, while in the age group 15-19 about 89% of the population either started or passed the preparatory level and about 3% have not achieved any level.

Table 9.6 Percentage Educational Level of the Sample Population, Aged 15 Years and Over, in Amman, 1977

Age Group	Illiterate	Educational Level			
		Elementary	Preparatory	Secondary	Higher Education
15-19	2.5	8.8	28.7	55.3	4.7
20-24	4.5	14.0	22.6	27.0	31.9
25-29	10.4	20.8	19.7	22.4	26.7
30-34	14.2	26.3	20.1	22.2	17.2
35-39	24.4	26.7	12.8	21.0	15.1
40-44	30.7	31.0	13.0	14.2	11.1
45-49	36.6	36.8	9.3	10.5	6.8
50 and over	51.5	27.7	6.9	7.7	6.2

Source : The 1977 Sample Survey

Educational levels vary between males and females (Table 9.7). Although the differences are greater among the older age groups, it is also noticeable among the youngest age groups. In the age group 15-19 the majority of both sexes have attended schools. In the same age group 12% of the females either left after elementary school or did not complete that level, while 6% of the males in the same age group were reported in the same category, i.e. the females dropped out from school earlier than the males. On the other hand, 26% of the females in the same age group have passed the elementary level to the preparatory, while 31% of the males did. The same pattern seems to be found in the age groups 20-34 for the first two levels of education. Indeed the older the age groups the lower the educational level of women, and in the age groups 50 years and over only 24% were educated compared with 65% of the men.

With respect to the secondary level, a very close similarity between males and females is reported in the age group 15-34. The most significant figure is that for the age group 15-19 where 56% and 54% of the males and females respectively were reported to have attained the secondary level, i.e. double the corresponding figures in the age group 20-24.

The improving nature of education in Amman leads us to two conclusions. First, it is expected in the next few years that the percentage of those who will enter the higher education will increase to more than 30% of each sex in the age group 20-24. Secondly, as a result female status will rise still further with probable effects upon fertility.

Generally speaking, the gap between males and females with regard to the educational level is narrow in the age groups 15-25, and wider in the older age groups. This pattern was completely different from that in 1966, when 93% of the males in the age groups 15-25 had achieved the elementary level, while 79% of the females in the same age group had achieved that level. Furthermore in 1966 the females who had achieved university level accounted for less than 1% of the total females aged 15 years and over, while the corresponding figure for 1977 was about 9%.

The educational level of the population aged 15 years and over in Amman as a whole indicates that 42% have passed the elementary and preparatory levels. By contrast, a different picture appeared among the city sectors (Table 9.8), where three-quarters of those 15 years and over in Abdali sector, and 70% in Zahran sector, have passed the first two levels of education, compared with the corresponding percentages of less than 40% in the remaining sectors.

Table 9.7 Male and Female Percentage Educational Level of the Sample Population Aged 15 years and Over in Amman, 1977

Age Groups	Illiterate		Elementary		Preparatory		Secondary		University	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
15-19	1.7	3.4	6.2	12.3	30.5	26.4	56.1	54.2	5.5	3.7
20-24	2.5	6.9	10.5	17.9	23.7	21.4	27.0	27.1	36.3	26.7
25-29	4.3	16.0	15.0	26.4	22.8	16.8	22.5	22.3	35.4	18.5
30-34	4.5	23.5	24.4	28.1	20.8	19.5	24.1	20.3	26.2	8.6
35-39	4.9	41.7	27.6	25.9	15.2	10.6	26.0	16.7	26.3	5.1
40-44	12.0	52.6	36.6	24.5	17.1	8.3	16.8	11.0	17.5	3.6
45-49	13.4	63.6	47.6	24.2	12.6	5.5	15.6	4.5	10.8	2.0
50 and over	35.2	76.0	36.0	15.3	8.7	4.1	10.5	3.6	9.6	1.0
15 and over	10.0	29.0	21.0	20.0	21.0	16.0	29.0	25.0	19.0	9.0

Source: The 1977 Sample Survey

Table 9.8 Percentage Educational Level of the Sample Population 15 Years and Over in Amman 1977, by Sector

City and Sectors	Element-ary	Preparat-ory	Second-ary	High Educ-ation	Illit-erate
Amman	20.9	18.6	27.2	14.6	18.7
City Centre	24.6	20.4	28.3	9.0	17.7
Basman	26.0	17.3	23.3	8.4	25.0
Ain Gazal	20.1	20.1	24.1	6.9	24.8
AL-Naser	23.8	20.4	24.6	10.1	21.1
Yarmouk	23.8	19.7	24.8	13.4	18.3
Ras EL-Ain	25.2	20.6	24.1	7.6	22.5
Bader	22.5	19.4	28.0	8.3	21.8
Zahran	8.8	14.5	40.1	30.2	6.4
Abdali	12.6	13.5	32.2	32.5	8.2

Source : The 1977 Sample Survey

III. School Enrolment

A number of 5,076 persons of the total sample population in Amman, i.e. 41%, were students in schools and higher education institutions in 1977. More than two-thirds of that number were less than 15 years of age and the remainder were between 15 and 24 years old.

Sex variations in school enrolment are quite apparent in Table 9.9, where the percentages of females decreases from 99% in the age group 10-14 to 71% in the age group 15-19, i.e. 28% of the school girls dropped out from the schools after 14 years of age, while 18% of the males did. The gap between males and females becomes wider in the age group 20-24, where 38% of the males are still being educated in contrast with only 15% of the females. The sex ratio for school attendance indicates that the traditional pattern of educating the males and not the females is rapidly crumbling. Most of the males and females between 6 and 14 years are attending school. In the age group 15-19 the males outnumber the females, with regard to the school attendance, although at the highest level of education, where mostly the students fall in the age group 20-24, males are still highly predominant. But here, too, the proportion of the female students is rising steadily.

In the age group 5-9 years old 81% of the total number of the children, boys and girls, are attending the elementary school, and if we exclude children less than 6 years old who have not yet entered elementary schools, i.e. 19%, it becomes evident that elementary schooling is almost universal. All the children of both sexes between 6 and 9 years

Table 9.9 School Attendance of the Sample Population, Aged 6-24 Years, in Amman, 1977

Age Groups	Males		Females		Both Sexes	
	Number	Percentage	Number	Percentage	Number	Percentage
6-9	780	100	717	99.3	1497	100
10-14	1065	99.0	1004	99.0	2069	99.0
15-19	738	81.0	477	71.0	1215	76.0
20-24	219	38.0	76	15.0	295	28.0
6-24	2802	84.0	2274	78.0	5076	81.0

Source : The 1977 Sample Survey

old are attending school compared with 70 % 10 years ago.

According to the 1966 social survey of Amman, it was concluded that the children entered elementary school at a later age than elsewhere in the Middle East, particularly the 6 year old children. This is rather surprising for the type of population under review, since elementary education in Jordan is compulsory since 1955 (Hacker, 1960) for every child reaching the age of 6 years, and according to Hacker almost all the children between 6 and 14 years in the 1958 sample survey were attending school, i.e. 8 years earlier than the 1966 social survey. The low percentage of child school attendance in 1966 may be attributed to the bias in reporting the age of children. However, in 1966 only one-third of the 6 year old children were reported as attending school. In fact, the 1966 survey was conducted between 25th and 31st of June, i.e. during a holiday period, and the school academic year starts

in the last week of August, so the probability of bias in age reporting could be expected, which gives the opportunity for the respondents to report school-acceptance age of their children and not their true age. Moreover, if we neglect this bias of age reporting, those children aged 6 years old by June 1966, should have entered the elementary school by September of the same year. In the 1971 sample survey of the uncontrolled settlements, 60% of the total number of the children 5-9 years old were attending school, but, as it was mentioned in the report on that survey, after excluding 5 and 6 year old children who have not yet entered school*, it was concluded that most of the children were attending school at the time of the survey was conducted in October, 1971. This supports the previous explanation of the low per cent of child school attendance in 1966. Nevertheless, the expansion of government education over the last 10 years is no doubt the most important determinant factor for the high level of school attendance in Amman in 1977.

In the age group 10-14, only 1% of the total number of the children was reported with no schooling, i.e. one out of a hundred children in Amman will enter the labour force as an illiterate or without any training. The percentage of the population attending school decreases with age as would be expected, from 76% in the 15-19 age group to 28% for the 20-24 age group.

A different pattern of school attendance existed in the city sectors, particularly among females (Table 9.10). In the age group 15-19, Zahran and Abdali sectors are seen to have the highest percentages of female school attendance, while

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* The 6 years old who had not entered school, were less than 6 years by September of that year.

Table 9.10 Percentage School Attendance of Persons Aged 15-24 Years, by Sex and by Sector in Amman, 1977

City and Sectors	15 - 19		20 - 24	
	Males	Females	Males	Females
Amman	81	71	38	15
City Centre	77	73	34	3
Basman	71	70	28	5
Ain Gazal	73	52	25	3
AL-Naser	79	69	32	13
Yarmouk	81	69	39	18
Ras EL-Ain	81	65	40	8
Bader	74	64	38	20
Zahran	94	87	65	27
Abdali	95	89	54	36

Source : The 1977 Sample Survey

in Ain Gazal only 52% of the females were attending school. More variations appeared among women aged 20-24; in the City Centre, Basman and Ain Gazal sectors less than 5% were still being educated, compared with more than one-third in Abdali sector. Differing social attitudes toward female school attendance may be partly responsible for these differences among the city sectors.

With respect to male school attendance, less variations are noticed. In the age group 15-19, the percentages range between 71% and 81% throughout the city sectors, excluding Zahran and Abdali sectors in which the percentages are over 90%. Differences for the age group 20-24 are much larger where about a quarter of the males of that age group in Basman and Ain Gazal sectors are still being educated, compared with two-thirds in Zahran sector and more than half in Abdali sector. These differences in male school attendance may be attributable to the economic status of the population in the city sectors; in the wealthiest sectors Zahran and Abdali parents can support their children in higher education, while in the poorest sectors this is rarely possible.

Conclusion

The previous discussion on literacy and education in Amman suggests that conditions are changing rapidly in this field. Literacy in Amman was found to be higher amongst the population aged 15 years and over than elsewhere in the country and among the highest in the Middle East, which indicates that the population of Amman are enjoying an excellent educational level. Although some differences exist between males and females, with regard to literacy and educ-

ational level, it seems that female education has increased over the last 10 years, which in turn may lead to a reduction in fertility rate. On the other hand, in terms of school attendance, the figures affirm that all children aged 6-14 years are attending school, which demonstrates the need for more effort in terms of educational costs and facilities.

Literacy and education for both sexes in the city sectors show that they differ according to variation in the socio-economic status. The effects of education on the economically active population will be discussed in the next chapter.

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CHAPTER TEN

ECONOMIC COMPOSITION OF THE POPULATION

I. The Economically Active Population

The dependency indicator mentioned earlier in Chapter Seven, showed a very high rate of dependency in Amman. This gives us some idea of the heavy burden being borne by the productive classes in Amman due to their having to support other extensive population groups consisting essentially of young mouths to feed. Therefore it is necessary to examine the economically active population and the effects of the youthfulness of the population of Amman on the labour force. On the other hand, so far as education is concerned we have also seen in Chapter Seven that the female educational level has been improved in the last 10 years. Thus an investigation on their participation in the labour force is important. Furthermore, how far migration has affected the labour force and employment? These, as well as the occupational structure of the population of Amman, will be discussed in this chapter.

The economically active population is defined here as the working population including males and females either employed or unemployed. In Amman, in 1977, 42% of those aged fifteen years and over were classified as economically active. This index was only 11% for the age group 15-19, but rose sharply to about 42% for those between 20 and 24, 54% for those twenty five to twenty nine, and 55% for the age group 40-44. The maximum percentage of the economically active persons reached about 61% among those aged 55 to 59, after which it fell among those aged 60 years and over.

Table 10.1 - Percentage Economically Active and Non-Active Population Aged 15 Years and Over in Amman, 1977

Age Group	Economically Active		Economically Non-Active		
	Employed	Unemployed	Students	Housewives	Not Applicable (1)
15-19	10.7	0.5	76.5	12.2	0.1
20-24	39.8	1.7	27.9	30.5	0.1
25-29	53.1	1.1	3.4	42.4	0.0
30-34	52.0	0.9	0.3	46.8	0.0
35-39	48.2	1.5	0.1	50.2	0.0
40-44	52.8	2.4	0.2	44.5	0.1
45-49	50.6	4.7	0.0	44.7	0.0
50-54	49.6	8.7	0.0	41.5	0.2
55-59	48.1	12.7	0.0	38.1	1.1
60 and over	28.2	28.9	0.0	30.6	12.3
15- 59	38.8	2.2	24.7	34.1	0.2
15 and over	38.1	3.9	23.2	33.9	0.9

Source : The 1977 Sample Survey

The low percentage of the active population aged 15 years and over is explained by the fact that 46.4% of the total sample population were less than 15 years of age. Moreover, 58.0% of the total population aged 15 years and over were classified as economically inactive, but the majority of these were housewives and students. Table 10.1 shows that 76.5% of the 15-19 age group were school attenders and 12.2% were housewives, i.e. 88.7% of the population of that group were inactive.

The proportion of the economically active population aged 15-59 in Amman in 1977 is similar to that of the country in 1974. In spite of that, there are some variations with regard to the age groups between Amman and the rest of the country. Table 10.2 shows that the proportion of the economically active population in the age groups 15-24, is lower in Amman than in the rest of the country. This is probably accountable by the high percentage of school attendance for those age groups in Amman, and the absence of female agricultural activity, which is so dominant in the rural areas.

In the age groups 25-39 the proportion is just higher in Amman than in the country, and it is much higher in the age groups 40-59 in Amman than in the country. Here migration may be responsible for the imbalance between Amman and the country with regard to the proportions of economically active in the age groups 25 and over.

Classification of the economically active population 15-59 years according to employment status revealed that 3.9% of the total number of the active population were

Table 10.2 Percentage of Economically Active and Unemployed in Amman, 1977 and in Jordan, 1974

Age Group	Amman 1977 (1)		Jordan 1974 (2)	
	Percentage Economically Active	Percentage Unemployed	Percentage Economically Active	Percentage Unemployed
15-19	10.7	0.5	17.1	3.4
20-24	39.8	1.7	49.4	3.7
25-29	53.1	1.1	53.8	1.4
30-34	52.0	0.9	49.5	0.9
35-39	48.2	1.5	48.0	0.6
40-44	52.8	2.4	49.1	0.8
45-49	50.6	4.7	47.8	0.7
50-54	49.6	8.7	46.4	0.7
55-59	48.0	12.7	42.4	1.1
60 and over	28.0	0.0	21.4	0.0
15-59	38.8	2.2	40.9	1.6
15 and over	38.1	3.9	39.1	1.6

Sources: (1) The 1977 Sample Survey
(2) D.S., 1976, Table 12

unemployed in 1977. Investigation into the age of the unemployed population revealed that the majority of them fall in the age groups 40-59. There was 2.4% in the age group 40-44 and this figure increases sharply to 12.7% in the age group 55-59. The corresponding figures for Jordan in 1974 indicate a reverse situation, where the majority of the unemployed fall in the age groups 15-24 (Table 10.2).

The employment situation for the population as a whole shows a completely different picture, as illustrated in Table 10.3. Only 20.4% of the total sample population in Amman in 1977 were economically active, which implies a very high dependency ratio. A refined dependency ratio of 390 has been calculated for Amman from data collected in 1977 (Table 10.4). This means that every 100 persons, considered as contributors to production, are supporting another 390 persons, which gives, therefore, a clear account of the heavy burden imposed upon the economically active population. Furthermore, this figure is very high if compared with that of the 1961 census, 289, (D.S., 1966, 36). Although this dependency ratio for Amman is lower than that of Jordan as a whole, it is still considered high when compared with that of developing countries.

In the 1974 multi-purpose household survey it was estimated that about 20% of the total population in Jordan were economically active, which is similar to that of Amman in the 1977 survey. Apparently, this is a very low rate when we compare it with that of 41% for the United States in 1970, and with that of 33% for India in the same year (Demographic Yearbook, 1973). The following can be cited as major causes for such a few low participation rate :

1. The low male participation of 70% for those aged 15-59 years. This can be attributed to the strong tendency among young population to devote more years for schooling, since there are 29% of the total number of males aged 15-59 continuing higher education, most of these in the age groups 15-24.

2. The age structure of the sample population contributed to the low rate of participation in Amman. As mentioned earlier, 46.4% of the total sample population fall into the dependency category of less than 15 years of age.

3. The female participation rate is very low. Only 3.9% of the total number of females are economically active. The corresponding rate for Jordan in 1974 is 4.1%, and for India and the United States in 1970, are 11.9% and 29.5% respectively (Demographic Yearbook, 1973). This low proportional contribution to economic activity is due to a combination of factors both economic, such as the lack of suitable employment opportunities for women, and social, such as certain prevailing customs and traditions, which are gradually becoming outmoded, that have prevented women from entering the labour market. In fact there is a large disparity between male and female contribution to the economic activity in Amman, since about 91% of the economically active population aged 15-59 were males and only 9% were females.

With respect to the pattern of contribution to the economic activity, particularly the male contribution, a basic feature can be noted. The male population of Amman enters the labour market at an older age than in many other countries and leaves the labour market earlier. The combined

effects of the rapid natural increase, and the masses of migrants to the city, have led to an extraordinary population growth, without any increase of job opportunities, though the unemployment is concentrated mainly among the youngest and oldest age groups (Table 10.1).

Table 10.3 Percentage Active Population of the Total Sample Population in Amman, 1977

Age Groups	Less than 15 years	60 years and over		15-59 years		Total Population
		Non-Active	Active	Non-Active	Active	
Numbers	5768	310	122	3807	2414	12421
Percentage	46.4	2.5	1.0	30.7	19.4	100.0

Source : The 1977 Sample Survey

Table 10.4 Real Dependency Ratios in Selected Developing Countries and in Amman

Amman and Selected Countries		Dependency Ratio *
Jordan	1974 (1)	425
Syria	1971	403
Amman	1977 (2)	390
Lebanon	1971	372
Iraq	1957	353
Philippines	1970	298

* $\frac{\text{Non-Active + less than 15 years + 60 \& over}}{\text{Active 15-59}} \times 100$

Sources: (1) D.S., 1976, Table 7
(2) The 1977 Sample Survey
Other Countries : Demographic Yearbook, 1973, Table 38

II. Occupation

Table 10.5 illustrates the occupational status of the economically active population in Amman for those aged 15 years and over, and indicates that about one-quarter of the active population are classified under administrative and clerical workers, mainly managers and clerks. School teachers, physicians and nursing occupations absorb only 10.7% of the active population. By contrast about 30% work as traders, merchants and transport or service workers. About 20% of the active population are manufacturing workers, where most of the work done is of an unskilled or a semi-skilled nature, mainly consisting of activities in small factories and on construction sites.

The occupational status of the economically active population in Amman has been affected by both migration and the participation of females in the labour force. Obviously, many refugees were forced to take any type of work they could, abandoning previously acquired skills and experience. The 1971 survey of the uncontrolled settlements in Amman revealed a high degree of occupational mobility for refugees, when more than 50% of the economically active heads of households had changed their previous occupation. A similar condition was found in the 1977 survey, when about 40% of the heads of migrant households had changed their previous occupation. Variation between males and females with respect to occupation indicates that about 7% of the active males were classified as physicians, nurses and school teachers, while 53% of the active females were under this category. On the other hand, about one-third of the active females

Table 10.5 Occupation of the Economically Active Population in Amman, 1977

Occupation	Numbers			Percentage		
	Both Sexes	Males	Females	Both Sexes	Males	Females
Physicians and Nursing	74	62	12	2.7	2.4	5.3
School Teachers	223	113	110	8.0	4.4	48.1
Administrative	674	596	78	24.1	23.2	34.1
Sales Worker and Merchants	353	349	4	12.6	13.6	1.7
Transport and Service	477	468	9	17.0	18.2	3.9
Manufacturing Workers	443	432	11	15.8	16.8	4.8
Construction	135	135	-	4.8	5.3	-
Military Forces	251	250	1	9.0	9.7	0.4
Not Stated	168	164	4	6.0	6.4	1.7
Total	2798	2569	229	100.0	100.0	100.0

Source : The 1977 Sample Survey

fell in the administrative and clerical workers, while just less than one-quarter of the active males were in the same category. Nursing and teaching seem to be suitable occupations for females in Amman, as well as secretarial, typing and sewing jobs. The same trend has been found in a small sample survey on the 'conditions of working women in Jordan in 1977', when most of the respondents stated that the above-mentioned jobs are better suited for women (Abu-Jaber, 1977).

Although the female contribution in other occupations is comparatively small, women in Amman can be found in most occupations. The figures show that 3.9% of the active females were working in transport and services, mainly those working as air hostesses. Also 4.8% of the active females were working in unskilled occupations, mainly in small factories of light industry such as clothing.

Conclusion

With regard to the economic composition of the population of Amman, four basic features can be noted. The first concerns the high dependency ratio created by the high fertility rate, particularly among migrants, which in turn led to a heavy burden imposed upon the productive classes. The second feature is represented by the low level of female contribution to the economically active population, which also adds more pressure on the productive classes. The third is related to the high contribution of those aged 25-59 years, which reflects the effects of migration as represented by the movement of young adults. This is also reflected in the unemployment status of the economically active popul-

ation where unemployment is higher among the oldest age groups than in the youngest. The fourth feature is concerned with the occupational status of the economically active females, which carried the implication that Amman possesses a human reserve capable of contributing towards the progress of development and construction if they were given suitable employment opportunities.

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CHAPTER ELEVEN

CONCLUSION

I. Population Problems of Amman

The recent population growth and distribution of Jordan are a result of both political and geographical imperatives. The 1948 and 1967 dual influx of refugees and displaced persons from Palestine and the West Bank, and the internal migration from urban and rural areas in the country have greatly affected the present type of population distribution, as well as the social and economic aspects of the country as a whole and its capital in particular.

The population of Amman accounted for 9% and 14% of the total population of Jordan in the years 1952 and 1961, and 34% of the total population of the East Bank in 1976. During the period 1948-1976, the annual rate of population growth in Amman has exceeded 11%. This is indeed a very high rate of growth which cannot be attributed solely to either natural increase or to rural-urban migration. A sizeable proportion of this growth has been caused by the influx of refugees, combined with in-migrants attracted by the new job opportunities and the assembling of business, government and investment opportunities in Amman.

The concentration of the population of Jordan in Amman has led to the convergence of most of the economic activities in the city. This has made it necessary to provide basic services, which induce newer establishments. Therefore, it may be suggested that Amman represents the centre of gravity in Jordan, in terms of population and economic activities. Thus, other parts of the country, urban and rural, are suffering

not only from the lack of economic improvements but also from a continuous loss of population.

The concentration of the population of Jordan in Amman is not all a blessing, as demonstrated by many local and international experts, since it has resulted in a host of socio-environmental and economic problems. The huge influx of refugees and migrants into the city caused an enormous housing shortage and produced the existing uncontrolled settlements, including the refugee camps in the city, which have been described by many experts as the greatest hurdle to urban planning in Amman. One can add to these, crowding, traffic congestion, transport problems, water and insufficient services, and escalating land prices. In fact, the city has attained its present size in a very short period due to the rapid population growth, which was beyond its capacity for accommodation.

A UNESOB report in 1973 estimated that some 70,000 inhabitants of the city in 1971 were living in uncontrolled settlements. To these one can add more than a 100,000 refugees living in UNRWA camps in 1976. The locations of these settlements and camps are shown in Figure 11.1, which indicates that they are situated mainly in the southern, eastern and northern sectors of the city, i.e. the main receptive areas for migrants. The UNESOB sample survey in 1971 covered only two of these uncontrolled settlements. Clearly it would be impracticable here to attempt a further detailed examination (a commitment with regard to the uncontrolled settlements can be seen at the end of this chapter), instead attention is directed to some aspects of the housing problem in the city.

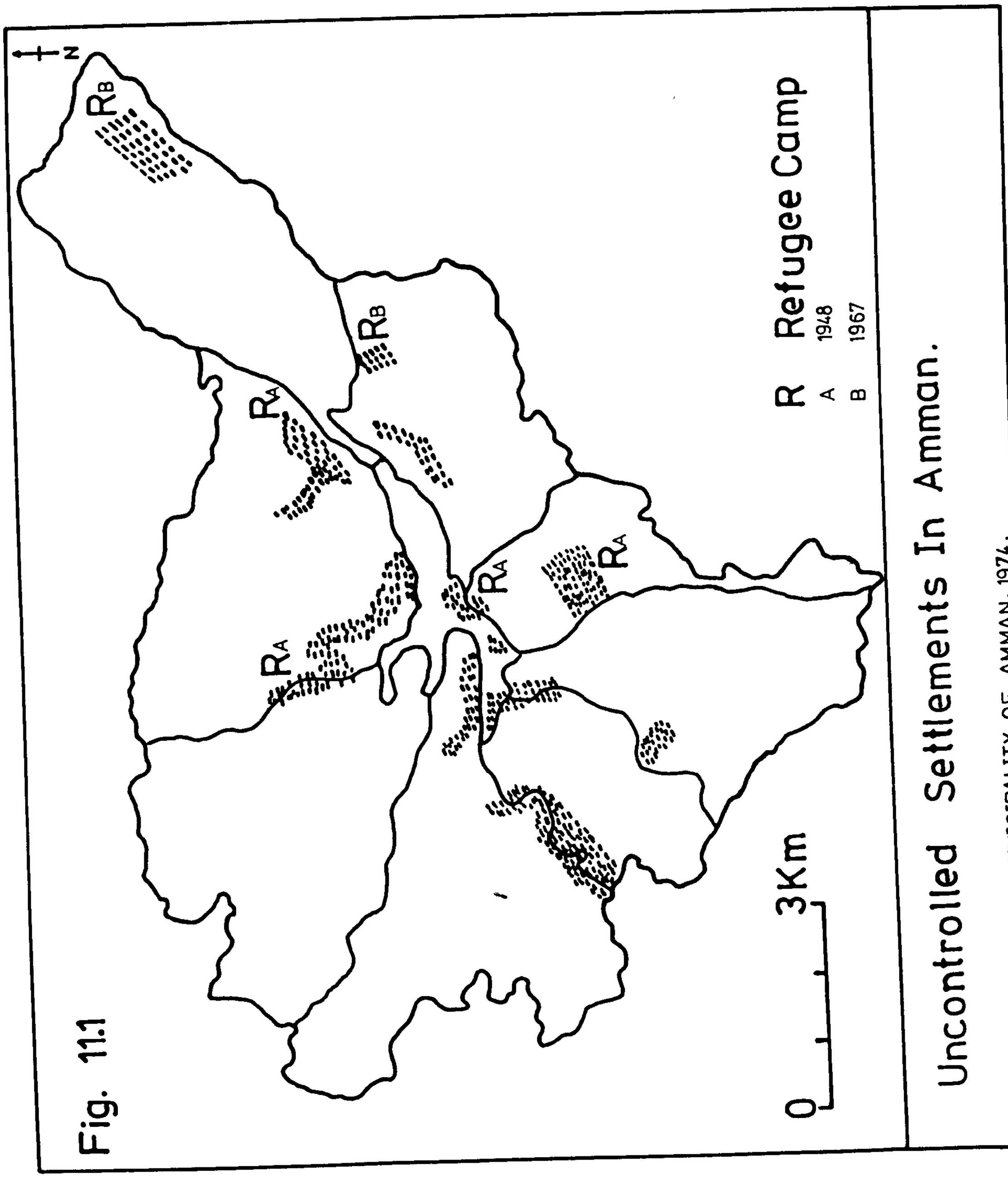

Fig. 11.1 Uncontrolled Settlements In Amman.

AFTER THE MUNICIPALITY OF AMMAN, 1974.

Shortage of houses is among the most important problems in Amman. According to the Municipality of Amman (1974), the housing conditions in the city were as follows : (a) 27% of the total households were living in one-room dwellings, and 28% in two-room dwellings; (b) 66% of the total households were living in houses supplied with drinking water, and 85% of the houses were supplied with electricity. In fact, the city is still short of houses and suffering from poor quality housing. The 1977 sample survey showed that 12% of the sample households were living in one-room dwellings, 29% in two-room dwellings, 31% in three-room dwellings and 28% in four or more dwellings. The person per room average in 1977 was 2.6, i.e. the same as it was in 1966. On the other hand, 55% of the total sample households in 1977 were living in rented houses. It is worth noting here that some of the respondents have claimed that they are the owners of the houses they occupied, but in fact, the houses were either belonging to UNRWA, or built by the migrant themselves on land acquired in the uncontrolled settlements. Together they represent a quarter of the houses in Amman, and were built of mud bricks or cement bricks, while about 49% of the houses in the city were built of concrete and 26% of dressed stone.

The Housing Corporation estimated in 1976 that Jordan is in need of 16,000 residential units annually, half for Amman city. The implications of such a heavy demand for houses are demonstrated by (i) a large proportion of children, (ii) migration to Amman which is characterized by a familial type and (iii) the large household size. These have been subjected to considerable attention in this study.

Apart from housing difficulties in Amman, water and traffic were among the major problems resulting from the rapid urban and population growth. Water requirements in Amman have put a heavy strain on the available resources. The water shortage in the city has caused an acute bottleneck. With the population relying mainly on rainfall for its drinking supply, the amount of water in Amman fluctuates from summer to winter, and a dry year creates serious difficulties. The present system of water pumping is operating at 75% efficiency, largely due to the complicated manoeuvres of opening and closing valves to supply various sections. With the present rate of 100,000 cubic meters pumped per day (Municipality of Amman, 1975), water reaches most sections of the city only one day every week. In addition, some sections do not receive water for periods of three to four weeks or longer. In the poorer uncontrolled settlements and the refugee camps, people obtain their water either from community hydrants or from water tankers. Water sources in Amman remain inadequate and subject to pollution from untreated ground water and surface runn-off.

Traffic flows is another problem stemming from a combination of both physical and human factors. The difficult topography of the city is a major disadvantage for urban planning, particularly in the city centre and the hill slopes around. The rapid urban expansion over these hills and the increasing number of vehicles in Amman has created serious congestion problems. The Department of Road Traffic (1976) estimated that vehicle registration in Amman city accounted for 85% of the vehicle registration in Jordan. In fact the

traffic problem in Amman is a result of a very rapid haphazard development and insufficient public transport facilities which led to an increase in the number of service taxis in the city. The problem is made worse by the fact that the city still has no car parking facilities.

II. The 1977 Survey : Retrospects and Prospects

In the previous chapters, the population growth of Amman, patterns of migratory movement to the city and its population structure were described and analysed. As we have seen, the population growth of Amman was a result of a combination of both forced, voluntary movements and the high rate of natural increase. Forced movement to Amman took place under a sudden and mass inflow of refugees in a very short period. Voluntary migration has been governed by the socio-economic variations between Amman and the rest of the country. At the same time the forced movement caused the city to expand rapidly and in turn accelerated the internal migration, and even the return migration, to the capital. The migratory movement has led to an increase in fertility rates since the migrants themselves were characterized by a high fertility rate, and the period in which the city attained its present size was too short to induce a notable change in long established customs like high fertility.

The analysis of the population structure of Amman has revealed the fact that the city is characterized by a very young population, since 46.4% of its population were less than 15 years of age in the 1977 Survey, despite the fact that migration to the city was on a large scale. The family movement to the city was partly responsible for this phenomenon and that was affirmed by its age and sex distribution where migrants to the city have contributed to all age groups from both sexes. On the other hand, the high fertility rate also shared the responsibility of such a young population. Migration has also affected the household size in Amman. The

average household size among the migrant households in 1977 was higher than that of the non-migrant households. Although the marital status has been affected by migration, it appeared that other socio-economic factors were involved to cause a delay of age at marriage in Amman.

The educational level indicated the efforts made by the Government and UNRWA to maintain a better level for both males and females. The 1977 data demonstrated that the higher the educational level the lower the fertility rate among females. Nevertheless, this encouraging picture must not dominate as a major key element towards reducing fertility, since the labour force in Amman in 1977 was found to be suffering from the absence or insignificant participation of females in the work-force. In spite of this fact, to be fair, the occupational status of the labour force in Amman showed that females have participated in certain occupations. This may suggest that the attraction of females to suitable employment opportunities, under the prevalent social and cultural conditions, can lead to a progress in development and reduce the heavy burden imposed upon the productive classes.

The spatial variation of migration and population structure in Amman has been analysed throughout the chapters concerned. In terms of migrant households' destinations, the study showed a great difference between city sectors. The southern, the eastern sectors and the northern sector, Basman, have received the largest numbers of migrant households, while the western, north-western, north-eastern and City Centre sectors received the least. The percentages of migrant refugee households, migrant non-refugee households, urban and rural

origins of migrant households, and non-migrant households in each of the city sectors have been mapped by the computer and the SYMAP programme has been used for this purpose. These maps are of great interest, since they show the diversification of migrants' destinations in Amman, and the close relationship between migrant refugee and non-refugee households in choosing their destinations in the city. Also, a strong relationship exists between the migrants' destinations and the distribution of the uncontrolled settlements in Amman's sectors (see Figures 6.1 - 6.6 and 11.1).

In a wider view, the relationship between migration and population structure, in terms of spatial variation, was found to be very strong. To clarify this, interrelationships among several variables were examined. Refugee and non-refugee migrant households were considered as the main migratory variables, and child/woman ratio, population less than 15 years of age, dependency ratio, household size, illiteracy and female contribution to the labour force as population structure variables. Table 11.1 is a matrix which includes the proportions ratios and averages of the above variables for each sector. Three groups of sectors can be recognized: (a) Yarmouk, Ras EL-Ain and Bader sectors fall in Group I; (b) City Centre, Basman, Ain Gazal and AL-Naser sectors fall in Group II; (c) Zahran and Abdali fall in Group III.

Group I is the most receptive area for migrant households, and the highest child/woman ratio, the highest average household size and most youthful population in the city were found here. Also, the sectors of this group have accounted

for relatively high percentages of illiterates. On the other hand, the participation of females in the economically active population was found to be very low in this group.

In the second group, although there were high percentages of migrant households in two sectors in this group, the child/woman ratios were, generally, lower than in the sectors of the first group, and the average household size was the same as that for the city as a whole. However, the percentages of illiteracy were found to be the highest in the city, while dependency ratios were lower than in Group I, and the female contribution to the labour force was found to be greater than in Group I.

The third group has been characterized by the least receptive area for migrants, particularly refugees, and the lowest child/woman and dependency ratios were found here, as well as the lowest average household size and illiteracy percentages; while it accounted for the highest percentages of female participation in the labour force.

Table 11.1 Matrix of Selected Population Variables In Amman Sectors, 1977

	Migrant Non-Refugee Households % of total Households	Migrant Refugee Households % of total Households	Child/ Woman Ratio (1)	Less than 15 Years % of total Population	Dependency Ratio (2)	Average Household Size	Illiterates % of total Population 15 Years & Over	Active Females % of total Population 15-59 Years
City Centre	35.0	30.0	800	46.1	340	6.62	16.0	10.0
Basman	35.0	51.8	757	47.5	334	7.19	25.0	5.1
Ain Gazal	33.8	35.5	894	47.9	334	7.32	24.0	5.5
AL-Naser	40.0	43.7	606	45.9	426	7.43	21.0	2.2
Yarmouk	42.0	40.7	824	48.8	376	7.69	19.0	6.8
Ras EL-Ain	42.5	42.5	995	53.3	426	8.13	22.0	3.0
Bader	44.7	39.5	926	51.5	400	7.84	22.0	1.7
Zahran	36.2	22.4	486	37.8	284	5.76	6.0	14.8
Abdali	44.4	32.0	513	39.6	300	6.47	8.0	17.6
Amman City	38.9	39.0	733	46.4	390	7.13	19.0	7.9

Notes : (1) $\frac{\text{No. of Children Less than 5 years}}{\text{No. of Women 15-44}} \times 1000$

(2) $\frac{\text{No. of Less than 15 years} + \text{No. of Non-Active 15 years and over}}{\text{Active Population 15 years and over}} \times 100$

Source : The 1977 Sample Survey

III. Suggested Alternatives

Solutions to the above mentioned population problems of Amman can be achieved by the regional planning in the country as a whole, and the urban planning in Amman itself.

First, on a regional planning scale, it may be suggested that the country is suffering a population concentration in its capital, and therefore an imbalanced population distribution. It is clear that the population concentration in Amman has been matched by the accumulation of most of the economic activities. Thus, a decentralization of economic activities can be a key element in regional planning (Findley, 1977). In this respect it may be worth while considering the concentration of development programmes such as housing projects, high schools, vocational colleges, hospitals, in urban areas other than Amman. Around these, the less populated settlements would form a network of satellites continuously interacting with major centres. This may encourage the rural population to move to these urban areas rather than to move to the capital directly. If we consider that in the 1977 survey, (a) about 66% of the East Bank out-migrant households to Amman came from urban areas, 34% from rural areas; (b) both came direct to Amman; and (c) the lack of job opportunities in most of the towns was among the major reasons for the movement to Amman, then the above alternative may be viable.

Adjunctive to this alternative, the establishment of industrial estates and zones in various parts of the country can provide points of attraction to investors and other inhabitants alike. Support for this comes from the 1977 survey,

where better job opportunities were also responsible for the voluntary movement (internal and return migration). Furthermore, the 1977 survey indicates that Amman is more attractive for return migrants than other places in the country.

Apart from socio-economic regional variations, forced movement to Amman was responsible to a large extent for its present problems. Although the attitudes of refugees towards a solution to their problem was beyond the 1977 survey, it is believed that for humanitarian reasons a fair and judicial solution based on their right to return to their homeland can solve partly some of Amman's problems, and perhaps the entire problem of the refugees who are living in extreme hardship in the camps.

Secondly, on a local urban planning scale, the uncontrolled settlements and housing are the most urgent problems. The 1977 survey showed that about one-third of the respondents preferred to move to new residential units, the majority of them have chosen the Housing Corporation projects as an alternative to improve their housing conditions. Hence, the financial aid to the government to face this demand is necessary. On the other hand, it is worth noting that two points stem from the UNESOB report on the uncontrolled settlements in Amman : (a) the survey of 1971 covered only two settlements in the city, and (b) the real purpose of the survey was a result of the necessity to construct the new road between Amman and Zarqa. However, there are other uncontrolled areas in the city in need of more investigation and development. In this respect, the 1977 survey revealed that the southern, eastern and Basman sectors are suffering from the expansion

of these settlements, substandard living conditions and the lack of most services.

With regard to the population structure, where a heavy burden is imposed upon the productive classes, as a result of the youthfulness of the population, it may be suggested that the 1977 survey indicates that females can contribute to the economically active population if suitable occupations are provided, and in turn they can reduce the pressure on their male counterparts. Hence, new establishments of suitable occupations for females are most likely to be introduced by both government and private sectors. However, natural increase in Amman is very high due to a high fertility rate, therefore a population policy is needed to counter the youthfulness of the population and to reduce pressure on both the government and the productive classes in the city, particularly in terms of education where almost all the population between 6 and 14 years of age were enrolled in schools in 1977.

Though the entire population problems of Amman cannot be sketched by the above alternatives, some aspects of it can be a keynote for future studies. It is hoped that this study will stimulate other workers to begin the lengthy task of examining, in some detail, the population distribution and the internal migration in Jordan for both comparative purposes and to clarify the differences between Amman and other parts of the country.

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A P P E N D I X I

The Comprehensive Count of Amman, 1971

(English Translation)

Census Area	Total Population	Males	Females	No. of Households	Average Household Size
Jabal Amman	40852	20745	20107	7295	5.6
" AL-Weibdeh	19011	9507	9504	3278	5.8
AL-Shmeisani	3937	2022	1915	645	6.1
Jabal Nazal & AL-Akhdar	25673	12971	12702	3721	6.9
" AL-Hussien	58331	29882	28449	9408	6.2
" AL-Nuzha	17698	9044	8654	2564	6.9
" AL-Qala'a	9150	4837	4313	1408	6.5
Sport City	2440	1277	1163	393	6.2
Wadi AL-Haddadeh	9910	5116	4793	1573	6.3
Jabal AL-Qosur	12264	6222	6042	1887	6.5
" AL-Hashimi.	34644	17918	16726	5249	6.6
AL-Mahata	13124	6755	6369	2051	6.4
Marka	25755	13219	12536	3962	6.5
Jabal AL-Naser	21872	11233	10639	3216	6.8
Irjan	1432	762	670	227	6.3
Jabal AL-Taj	32237	16516	15721	5285	6.1
" AL-Joufeh	38613	19504	19109	5940	6.5
Ashrafieh & Wehdat	72319	36425	35894	10907	6.6
AL-Shoaibieh	10861	5581	5280	1647	6.6
Jabal AL-Nadeef	41318	210560	20262	6357	6.5
Naharia & Umm AL-Heran	3720	1926	1794	5810	6.4
Jabal AL-Zohur	2878	1428	1450	464	6.2
City Centre	2681	1377	1305	487	5.5
Private Organizations	20000	18680	1320	913	-
Total	520720	274003	246717	79507	6.5

Source : Department of Statistics, Demographic Section, Amman, 1973.

A P P E N D I X II

A Sample Survey of the Population of Amman, Jordan, August - September 1977

Questionnaire

English Translation (Original in Arabic)

Identification of Household

Serial Number _____

Head of Household _____

Name of Interviewer _____

Date of Interview _____

Block Number _____

Population Structure (Data Refer to Individuals)

1	2	3	4	5	6	7	8	9	10	11
House-hold Members	Names of Members	Relation to the Head of the House-hold	Sex 1.Male 2.Female	Age (Years) Infant if less than one Year	Place and Date of Birth	Marital Status 1.Single 2.Married 3.Widowed 4.Div-orced	Literacy 1.Read & Write 2.Illit-erate	Education Level 1.Elemen-tary 2.Prepar-atory 3.Second-ary 4.High	Occup-ation	Employment Status 1. Employed 2. Unem-ployed
1 2 3 4 . . . 20										

Migration (Data Refer to Households)

12 - Date of arrival in Amman (year) _____

13 - Place of residence before moving to Amman

	District	Subdistrict	City (Town)	Village

14 - Numbers of household members :

a) accompanying the head of household at the time of arrival _____

b) joined later _____

15 - Movement to other places before settling in Amman :

	Place	Date
1	_____	_____
2	_____	_____
3	_____	_____

16 - Reasons of movement :

1. Looking for job.
2. Better job opportunities.
3. Job transfer.
4. Family relations.
5. Displacement.
6. War.
7. Military Service.
8. Not Stated.

17 - Occupation of the head of household:

a) before settling in Amman _____

b) in 1977 _____

Housing (Data Refer to Households)

18 - Classification of house building material:

a) Dressed Stone b) Concrete

c) Cement bricks d) Mud bricks

e) Huts

19 - House ownership :

a) Owner b) Rented

20 - Number of rooms :

a) One room b) Two rooms

c) Three rooms d) Four rooms and more

21 - Number of families :

a) One family b) Two families

c) Three families d) Four families and more

22 - Household utilities :
(Kitchen & Bathroom)

a) Available b) Not available

23 - Desire to move to a new residence :

a) Yes b) No

24 - Choice of alternatives (for the Yes answer):

a) Housing Corporation Projects

b) Loan from the Housing Bank

c) Co-operative projects

d) Self-Help

A P P E N D I X III

Final Tables of the 1977 Sample Survey of the Population of Amman

A - Population Structure Variables

B - Migration Variables

C - Housing Variables

City Sector Identifications	
Sector Number	Identification
1	City Centre
2	Basman
3	Ain Gazal
4	AL-Naser
5	Yarmouk
6	Ras EL-Ain
7	Bader
8	Zahran
9	Abdali

A - Population Structure Variables

Variable Number	Variable Description	Codes
1.	Sex	1. Male
		2. Female
2.	Age Groups (years)	1. Less than One Year
		2. 1 - 4
		3. 5 - 9
		4. 10 - 14
		5. 15 - 19
		6. 20 - 24
		7. 25 - 29
		8. 30 - 34
		9. 35 - 39
		10. 40 - 44
		11. 45 - 49
		12. 50 - 54
		13. 55 - 59
		14. 60 and over

Variable Number	Variable Description	Codes
3.	Place of birth	1. In Amman
		2. Outside Amman
4.	Marital Status	1. Single
		2. Married
		3. Divorced
		4. Widowed
5.	Literacy	1. Read and Write
		2. Illiterate
		0. Not Applicable*
6.	Education level	1. Elementary
		2. Preparatory
		3. Secondary
		4. Higher Education
		5. Continuing Study
		0. Not Applicable *

Variable Number	Variable Description	Codes
7.	Occupation	1. Doctors and Nurses
		2. School Teachers
		3. Managers, Clerks, Organizers
		4. Merchants, Supermarket sales workers
		5. Transport, Service workers
		6. Industry workers
		7. Construction workers
		8. Military forces
		9. Housewives
		10. Not mentioned above
		11. Students
		0. Not Applicable *
8.	Employment status	1. Employed
		2. Unemployed
		0. Not Applicable*

* Not Applicable :

Variable 5 = Children less than school age limit, Deaf-mutes

Variable 6 = " " " " " " " ", and Illiterates

Variables 7 and 8 = Handicapped, Children less than work age

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V1 BY SECTOR

* *

V1	COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
1.		384	1290	880	757	951	642	307	464	897	6572
		50.9	52.4	52.7	53.6	54.7	54.0	51.5	53.0	52.1	52.9
2.		371	1172	791	656	787	546	289	412	825	5849
		49.1	47.6	47.3	46.4	45.3	46.0	48.5	47.0	47.9	47.1
COLUMN TOTAL		755	2462	1671	1413	1738	1188	596	876	1722	12421
		6.1	19.8	13.5	11.4	14.0	9.6	4.8	7.1	13.9	100.0

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V2 BY SECTOR

* *

V2 / COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
1.	31 / 4.1	97 / 3.9	79 / 4.7	50 / 3.5	80 / 4.6	57 / 4.8	27 / 4.5	28 / 3.2	50 / 2.9	499 / 4.0
2.	97 / 12.8	261 / 10.6	190 / 11.4	124 / 8.8	186 / 10.7	152 / 12.8	73 / 12.2	74 / 8.4	165 / 9.6	1322 / 10.6
3.	108 / 14.3	378 / 15.4	255 / 15.3	234 / 16.6	269 / 15.5	217 / 18.3	103 / 17.3	89 / 10.2	203 / 11.8	1856 / 14.9
4.	112 / 14.8	433 / 17.6	277 / 16.6	241 / 17.1	314 / 18.1	207 / 17.4	104 / 17.4	139 / 15.9	264 / 15.3	2091 / 16.8
5.	93 / 12.3	296 / 12.0	211 / 12.6	214 / 15.1	236 / 13.6	137 / 11.5	59 / 9.9	115 / 13.1	229 / 13.3	1590 / 12.8
6.	64 / 8.5	204 / 8.3	143 / 8.6	117 / 8.3	138 / 7.9	87 / 7.3	49 / 8.2	76 / 8.7	183 / 10.6	1061 / 8.5
7.	40 / 5.3	143 / 5.8	88 / 5.3	77 / 5.4	99 / 5.7	68 / 5.7	36 / 6.0	49 / 5.6	115 / 6.7	715 / 5.8
8.	40 / 5.3	131 / 5.3	97 / 5.8	60 / 4.2	86 / 4.9	65 / 5.5	46 / 7.7	61 / 7.0	95 / 5.5	681 / 5.5
9.	38 / 5.0	123 / 5.0	83 / 5.0	71 / 5.0	76 / 4.4	57 / 4.8	32 / 5.4	62 / 7.1	114 / 6.6	656 / 5.3
10.	40 / 5.3	103 / 4.2	61 / 3.7	72 / 5.1	68 / 3.9	50 / 4.2	12 / 2.0	53 / 6.1	92 / 5.3	551 / 4.4
11.	25 / 3.3	84 / 3.4	56 / 3.4	48 / 3.4	65 / 3.7	19 / 1.6	23 / 3.9	40 / 4.6	69 / 4.0	429 / 3.5
COLUMN TOTAL	755 / 6.1	2462 / 19.8	1671 / 13.5	1413 / 11.4	1738 / 14.0	1188 / 9.6	596 / 4.8	876 / 7.1	1722 / 13.9	12421 / 100.0

(CONTINUED)

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V2 BY SECTOR

* *

V2 \ SECTOR	1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
12.	26	69	42	37	45	26	18	28	66	357
	3.4	2.8	2.5	2.6	2.6	2.2	3.0	3.2	3.8	2.9
13.	12	42	22	28	23	10	3	17	24	181
	1.6	1.7	1.3	2.0	1.3	0.8	0.5	1.9	1.4	1.5
14.	29	98	67	40	53	36	11	45	53	432
	3.8	4.0	4.0	2.8	3.0	3.0	1.8	5.1	3.1	3.5
COLUMN TOTAL	755	2462	1671	1413	1738	1188	596	876	1722	12421
	6.1	19.8	13.5	11.4	14.0	9.6	4.8	7.1	13.9	100.0

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V3 BY SECTOR

* *

V3	COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
	1.	493	1373	1001	740	1021	651	355	516	882	7032
		65.3	55.8	59.9	52.4	58.7	54.8	59.6	58.9	51.2	56.6
	2.	262	1089	670	673	717	537	241	360	840	5389
		34.7	44.2	40.1	47.6	41.3	45.2	40.4	41.1	48.8	43.4
	COLUMN TOTAL	755	2462	1671	1413	1738	1188	596	876	1722	12421
		6.1	19.8	13.5	11.4	14.0	9.6	4.8	7.1	13.9	100.0

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V4 BY SECTOR

* *

V4	COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
1.		501	1646	1128	970	1220	825	399	538	1167	8394
		65.4	66.9	67.5	68.6	70.2	69.4	66.9	61.4	67.8	67.6
2.		235	769	518	422	487	351	189	313	518	3802
		31.1	31.2	31.0	29.9	28.0	29.5	31.7	35.7	30.1	30.6
3.		1	10	1	2	3	1	1	2	1	22
		0.1	0.4	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.2
4.		18	37	24	19	28	11	7	23	36	203
		2.4	1.5	1.4	1.3	1.6	0.9	1.2	2.6	2.1	1.6
COLUMN TOTAL		755	2462	1671	1413	1738	1188	596	876	1722	12421
		6.1	19.8	13.5	11.4	14.0	9.6	4.8	7.1	13.9	100.0

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V5 BY SECTOR

* *

V5	COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
0.		144	440	337	242	330	265	72	113	228	2171
		19.1	17.9	22.2	17.1	19.0	22.3	12.1	12.9	13.2	17.5
1.		546	1712	1120	1014	1244	799	411	733	1416	8995
		72.3	69.5	67.0	71.8	71.6	67.3	69.0	83.7	82.2	72.4
2.		65	310	214	157	164	124	113	30	78	1255
		8.6	12.6	12.8	11.1	9.4	10.4	19.0	3.4	4.5	10.1
COLUMN TOTAL		755	2462	1671	1413	1738	1188	596	876	1722	12421
		6.1	19.8	13.5	11.4	14.0	9.6	4.8	7.1	13.9	100.0

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V6 BY SECTOR

* *

V6 \ SECTOR	1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
0.	209	750	551	399	494	390	185	143	306	3427
	27.7	30.5	33.0	28.2	28.4	32.8	31.0	16.3	17.8	27.6
1.	263	908	536	506	593	443	213	189	435	4086
	34.8	36.9	32.1	35.8	34.1	37.3	35.7	21.6	25.3	32.9
2.	129	392	315	240	310	178	91	155	295	2105
	17.1	15.9	18.9	17.0	17.8	15.0	15.3	17.7	17.1	16.9
3.	117	303	210	191	222	135	83	224	348	1833
	15.5	12.3	12.6	13.5	12.8	11.4	13.9	25.6	20.2	14.8
4.	37	109	59	77	119	42	24	165	338	970
	4.9	4.4	3.5	5.4	6.8	3.5	4.0	18.8	19.6	7.8
COLUMN TOTAL	755	2462	1671	1413	1738	1188	596	876	1722	12421
	6.1	19.8	13.5	11.4	14.0	9.6	4.8	7.1	13.9	100.0

FILE NONAME (CREATION DATE = 02/27/79)

C R O S S T A B U L A T I O N O F V7 BY SECTOR

V7	COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
0.		144	441	338	242	330	265	126	120	234	2240
		19.1	17.9	20.2	17.1	19.0	22.3	21.1	13.7	13.6	18.0
1.		3	6	3	6	4	2	0	16	34	74
		0.4	0.2	0.2	0.4	0.2	0.2	0.0	1.8	2.0	0.6
2.		12	47	26	22	24	18	7	14	53	223
		1.6	1.9	1.6	1.6	1.4	1.5	1.2	1.6	3.1	1.8
3.		41	92	73	52	89	40	26	99	162	674
		5.4	3.7	4.4	3.7	5.1	3.4	4.4	11.3	9.4	5.4
4.		39	42	30	37	43	25	14	42	81	353
		5.2	1.7	1.8	2.6	2.5	2.1	2.3	4.8	4.7	2.8
5.		33	119	92	53	71	55	16	6	33	478
		4.4	4.8	5.5	3.8	4.1	4.6	2.7	0.7	1.9	3.8
6.		35	140	56	67	73	31	8	16	24	450
		4.6	5.7	3.4	4.7	4.2	2.6	1.3	1.8	1.4	3.6
7.		1	23	19	19	26	10	17	7	16	138
		0.1	0.9	1.1	1.3	1.5	0.8	2.9	0.8	0.9	1.1
8.		5	60	55	40	21	30	9	13	18	251
		0.7	2.4	3.3	2.8	1.2	2.5	1.5	1.5	1.0	2.0
9.		145	467	320	262	301	202	110	160	297	2264
		19.2	19.0	19.2	18.5	17.3	17.0	18.5	18.3	17.2	18.2
10.		1	40	30	12	15	17	24	17	12	168
		0.1	1.6	1.8	0.8	0.9	1.4	4.0	1.9	0.7	1.4
COLUMN TOTAL		755	2462	1671	1413	1738	1188	596	876	1722	12421
		6.1	19.8	13.5	11.4	14.0	9.6	4.8	7.1	13.9	100.0

(CONTINUED)

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* * * * * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F * * * * * * * * * * * * * * * * * * *

V7 BY SECTOR

* *

V7	COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
	11.	296	985	629	601	741	493	239	366	758	5108
		39.2	40.0	37.6	42.5	42.6	41.5	40.1	41.8	44.0	41.1
	COLUMN TOTAL	755	2462	1671	1413	1738	1188	596	876	1722	12421
		6.1	19.8	13.5	11.4	14.0	9.6	4.8	7.1	13.9	100.0

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V8 BY SECTOR

* *

V8	COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
0.		144	441	338	242	330	265	70	119	230	2179
		19.1	17.9	20.2	17.1	19.0	22.3	11.7	13.6	13.4	17.5
1.		156	506	347	283	331	201	113	216	398	2551
		20.7	20.6	20.8	20.0	19.0	16.9	19.0	24.7	23.1	20.5
2.		455	1515	986	888	1077	722	413	541	1094	7691
		60.3	61.5	59.0	62.8	62.0	60.8	69.3	61.8	63.5	61.9
COLUMN TOTAL		755	2462	1671	1413	1738	1188	596	876	1722	12421
		6.1	19.8	13.5	11.4	14.0	9.6	4.8	7.1	13.9	100.0

B - Migration Variables

Variable Number	Variable Description	Codes
1.	Marital status of parents	1. Both married before migration
		2. Wife migrant and husband non-migrant
		3. Husband migrant and wife non-migrant
		4. Both migrants before marriage
		5. Husband migrant before marriage, and wife migrated to marry
		6. Unmarried migrants
2.	Date of Arrival in Amman	48 = 1948 49 = 1949 ⋮ ⋮ 77 = 1977
3.	Place of origin	1-7 represent the following respectively: Lydda, Jaffa, Ramleh, Salameh, Ein Karim, Haifa, Acka, Nasera and Safad. (All in Palestine)
		8-15 represent the following respectively: Jenin, Nablus, Tulkarm, Ramallah, Jerusalem, Jericho, Bethlehem, and Hebron (All West Bank subdistricts)

Variable Number	Variable Description	Codes
		16-29 (except 22 which represents nothing) represent the following respectively : Ma'an, Aqaba, Tafeeleh, Karak, Ramtha, Mafraq, Irbid, Jarash, Ajlun, Balqa, Amman, Madaba, and Zarqa. (All East Bank subdistricts)
		30-39 represent the following countries and regions : Gaza Strip, Lebanon, Syria, Iraq, Kuwait and the Gulf States, Saudi Arabia, Egypt, Libya, United States and South America, and Europe.
4.	Urban, Rural Origins	1. Urban
		2. Rural
5.	Household member at the time of arrival in Amman	1 = 1 2 = 2 : : 12 = 12
6.	Migration Steps	1. Direct Refugee
		2. Direct Non-Refugee
		3. Steps Refugee
		4. Steps Non-Refugee
		5. Steps Refugee Via Other Countries
		6. Direct Return Jordanian
		7. Direct from Arab Countries
		8. Direct from Other Countries

Variable Number	Variable Description	Codes
7.	Causes of Migration	1. Looking for a job
		2. Better job opportunities
		3. Job Transfer
		4. Family relations
		5. Displacement
		6. War
		7. Military Services
		8. Not Stated
8.	Refugee, Non-Refugee Status	1. Refugee from Palestine, 1948
		2. Westbankers (Forced and Voluntary Migration)
		3. Double Refugees
		4. Eastbankers (Voluntary)
		5. Arabs
		6. European
		7. Return Jordanian
9.	Household members in 1977	1 = 1 ⋮ ⋮ 22 = 22
10.	Relatives Living in the Household	1 = 1 ⋮ ⋮ 4 = 4
11.	Families in the House-hold	1 = 1 ⋮ ⋮ 4 = 4

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V1 BY SECTOR

* *

V1 / COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
1.	50	202	115	111	142	102	46	68	156	992
	67.6	68.0	72.8	69.8	75.9	82.3	71.9	76.4	76.8	73.2
3.	7	3	5	4	4	4	2	4	11	44
	9.5	1.0	3.2	2.5	2.1	3.2	3.1	4.5	5.4	3.2
4.	13	59	19	22	34	11	6	10	24	198
	17.6	19.9	12.0	13.8	18.2	8.9	9.4	11.2	11.8	14.6
5.	2	32	19	20	5	6	9	6	8	107
	2.7	10.8	12.0	12.6	2.7	4.8	14.1	6.7	3.9	7.9
6.	2	1	0	2	2	1	1	1	4	14
	2.7	0.3	0.0	1.3	1.1	0.8	1.6	1.1	2.0	1.0
COLUMN TOTAL	74	297	158	159	187	124	64	89	203	1355
	5.5	21.9	11.7	11.7	13.8	9.2	4.7	6.6	15.0	100.0

FILE NONAME (CREATION DATE = 02/27/79)

* * * * * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F * * * * * * * * * * * * * * * * * * *

V2 BY SECTOR

* *

V2	COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
48.		16 / 21.6	79 / 26.6	11 / 7.0	22 / 13.8	38 / 20.3	13 / 10.5	5 / 7.8	24 / 27.0	47 / 23.2	255 / 18.8
49.		2 / 2.7	8 / 2.7	4 / 2.5	0 / 0.0	8 / 4.3	6 / 4.8	1 / 1.6	3 / 3.4	4 / 2.0	36 / 2.7
50.		1 / 1.4	9 / 3.0	3 / 1.9	7 / 4.4	9 / 4.8	6 / 4.8	1 / 1.6	2 / 2.2	3 / 1.5	41 / 3.0
51.		1 / 1.4	3 / 1.0	1 / 0.6	1 / 0.6	4 / 2.1	0 / 0.0	0 / 0.0	1 / 1.1	3 / 1.5	14 / 1.0
52.		5 / 6.8	4 / 1.3	4 / 2.5	7 / 4.4	14 / 7.5	5 / 4.0	0 / 0.0	2 / 2.2	7 / 3.4	48 / 3.5
53.		1 / 1.4	8 / 2.7	0 / 0.0	6 / 3.8	8 / 4.3	2 / 1.6	0 / 0.0	1 / 1.1	4 / 2.0	30 / 2.2
54.		3 / 4.1	2 / 0.7	1 / 0.6	1 / 0.6	2 / 1.1	2 / 1.6	0 / 0.0	1 / 1.1	3 / 1.5	15 / 1.1
55.		1 / 1.4	5 / 1.7	3 / 1.9	4 / 2.5	3 / 1.6	3 / 2.4	0 / 0.0	0 / 0.0	1 / 0.5	20 / 1.5
56.		0 / 0.0	7 / 2.4	5 / 3.2	2 / 1.3	2 / 1.1	1 / 0.8	2 / 3.1	2 / 2.2	1 / 0.5	22 / 1.6
57.		2 / 2.7	10 / 3.4	4 / 2.5	5 / 3.1	1 / 0.5	0 / 0.0	1 / 1.6	3 / 3.4	5 / 2.5	31 / 2.3
58.		1 / 1.4	3 / 1.0	1 / 0.6	6 / 3.8	3 / 1.6	2 / 1.6	1 / 1.6	2 / 2.2	4 / 2.0	23 / 1.7
COLUMN TOTAL		74 / 5.5	297 / 21.9	158 / 11.7	159 / 11.7	187 / 13.8	124 / 9.2	64 / 4.7	89 / 6.6	203 / 15.0	1355 / 100.0

(CONTINUED)

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V2 BY SECTOR

* *

V2 \ SECTOR	1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
59.	1 / 1.4	0 / 0.0	0 / 0.0	2 / 1.3	5 / 2.7	2 / 1.6	5 / 7.8	3 / 3.4	7 / 3.4	25 / 1.8
60.	4 / 5.4	6 / 2.0	3 / 1.9	2 / 1.3	3 / 1.6	4 / 3.2	1 / 1.6	3 / 3.4	5 / 2.5	31 / 2.3
61.	2 / 2.7	1 / 0.3	2 / 1.3	2 / 1.3	4 / 2.1	1 / 0.8	2 / 3.1	0 / 0.0	2 / 1.0	16 / 1.2
62.	1 / 1.4	9 / 3.0	2 / 1.3	4 / 2.5	0 / 0.0	2 / 1.6	2 / 3.1	3 / 3.4	7 / 3.4	30 / 2.2
63.	2 / 2.7	3 / 1.0	4 / 2.5	3 / 1.9	6 / 3.2	3 / 2.4	2 / 3.1	3 / 3.4	4 / 2.0	30 / 2.2
64.	1 / 1.4	5 / 1.7	4 / 2.5	3 / 1.9	2 / 1.1	1 / 0.8	3 / 4.7	0 / 0.0	4 / 2.0	23 / 1.7
65.	2 / 2.7	5 / 1.7	5 / 3.2	4 / 2.5	0 / 0.0	6 / 4.8	3 / 4.7	1 / 1.1	5 / 2.5	31 / 2.3
66.	1 / 1.4	7 / 2.4	4 / 2.5	2 / 1.3	5 / 2.7	3 / 2.4	1 / 1.6	1 / 1.1	4 / 2.0	28 / 2.1
67.	15 / 20.3	73 / 24.6	54 / 34.2	55 / 34.6	34 / 18.2	42 / 33.9	23 / 35.9	9 / 10.1	29 / 14.3	334 / 24.6
68.	0 / 0.0	15 / 5.1	13 / 8.2	3 / 1.9	5 / 2.7	2 / 1.6	1 / 1.6	0 / 0.0	6 / 3.0	45 / 3.3
69.	2 / 2.7	3 / 1.0	5 / 3.2	6 / 3.8	3 / 1.6	3 / 2.4	1 / 1.6	0 / 0.0	3 / 1.5	26 / 1.9
COLUMN TOTAL	74 / 5.5	297 / 21.9	158 / 11.7	159 / 11.7	187 / 13.8	124 / 9.2	64 / 4.7	89 / 6.6	203 / 15.0	1355 / 100.0

(CONTINUED)

FILE NONAME (CREATION DATE = 02/27/79)

* * * * * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F * * * * * * * * * * * * * * * * * * *

V2 BY SECTOR

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V2 / SECTOR	1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
70.	0 0.0	7 2.4	3 1.9	0 0.0	7 3.7	5 4.0	0 0.0	2 2.2	4 2.0	28 2.1
71.	1 1.4	4 1.3	3 1.9	0 0.0	1 0.5	2 1.6	1 1.6	3 3.4	2 1.0	17 1.3
72.	3 4.1	3 1.0	6 3.8	3 1.9	6 3.2	3 2.4	0 0.0	1 1.1	6 3.0	31 2.3
73.	1 1.4	2 0.7	2 1.3	2 1.3	2 1.1	1 0.8	2 3.1	2 2.2	12 5.9	26 1.9
74.	1 1.4	4 1.3	2 1.3	0 0.0	4 2.1	0 0.0	1 1.6	7 7.9	3 1.5	22 1.6
75.	2 2.7	1 0.3	6 3.8	5 3.1	1 0.5	3 2.4	1 1.6	1 1.1	7 3.4	27 2.0
76.	1 1.4	5 1.7	3 1.9	1 0.6	4 2.1	0 0.0	3 4.7	6 6.7	6 3.0	29 2.1
77.	1 1.4	6 2.0	0 0.0	1 0.6	3 1.6	1 0.8	1 1.6	3 3.4	5 2.5	21 1.5
COLUMN TOTAL	74 5.5	297 21.9	158 11.7	159 11.7	187 13.8	124 9.2	64 4.7	89 6.6	203 15.0	1355 100.0

FILE NONAME (CREATION DATE = 02/27/79)

C R O S S T A B U L A T I O N O F V3 BY SECTOR

V3	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
1.	1 1.4	18 6.1	2 1.3	4 2.5	14 7.5	4 3.2	1 1.6	1 1.1	6 3.0	51 3.8
2.	7 9.5	45 15.2	1 0.6	16 10.1	22 11.8	9 7.3	2 3.1	8 9.0	22 10.8	132 9.7
3.	3 4.1	8 2.7	4 2.5	1 0.6	5 2.7	3 2.4	0 0.0	3 3.4	6 3.0	33 2.4
5.	0 0.0	8 2.7	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	8 0.6
6.	2 2.7	2 0.7	2 1.3	1 0.6	2 1.1	4 3.2	0 0.0	2 2.2	2 1.0	17 1.3
7.	0 0.0	1 0.3	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 0.1
8.	0 0.0	4 1.3	7 4.4	9 5.7	7 3.7	3 2.4	1 1.6	0 0.0	7 3.4	38 2.8
9.	6 8.1	16 5.4	12 7.6	5 3.1	11 5.9	5 4.0	2 3.1	2 2.2	28 13.8	87 6.4
10.	1 1.4	10 3.4	3 1.9	7 4.4	2 1.1	4 3.2	0 0.0	2 2.2	6 3.0	35 2.6
11.	6 8.1	28 9.4	16 10.1	14 8.8	17 9.1	1 0.8	5 7.8	3 3.4	11 5.4	101 7.5
12.	6 8.1	16 5.4	10 6.3	9 5.7	14 7.5	5 4.0	21 32.8	19 21.3	29 14.3	129 9.5
COLUMN TOTAL	74 5.5	297 21.9	158 11.7	159 11.7	187 13.8	124 9.2	64 4.7	89 6.6	203 15.0	1355 100.0

(CONTINUED)

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

CROSSTABULATION OF V3 BY SECTOR

V3	COUNT / COL: PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
13.		3 / 4.1	27 / 9.1	16 / 10.1	18 / 11.3	15 / 8.0	21 / 16.9	0 / 0.0	0 / 0.0	0 / 0.0	100 / 7.4
14.		2 / 2.7	5 / 1.7	8 / 5.1	1 / 0.6	8 / 4.3	0 / 0.0	5 / 7.8	6 / 6.7	2 / 1.0	37 / 2.7
15.		12 / 15.2	15 / 5.1	13 / 8.2	16 / 10.1	18 / 9.6	12 / 9.7	9 / 14.1	0 / 0.0	2 / 1.0	97 / 7.2
16.		0 / 0.0	0 / 0.0	7 / 4.4	1 / 0.6	0 / 0.0	1 / 0.8	0 / 0.0	1 / 1.1	1 / 0.5	11 / 0.8
17.		0 / 0.0	0 / 0.0	0 / 0.0	1 / 0.6	1 / 0.5	0 / 0.0	1 / 1.6	0 / 0.0	2 / 1.0	3 / 0.2
18.		0 / 0.0	1 / 0.3	1 / 0.6	2 / 1.3	4 / 2.1	3 / 2.4	0 / 0.0	0 / 0.0	1 / 0.5	12 / 0.9
19.		1 / 1.4	7 / 2.4	2 / 1.3	1 / 0.6	2 / 1.1	6 / 4.8	0 / 0.0	1 / 1.1	4 / 2.0	24 / 1.8
20.		1 / 1.4	1 / 0.3	1 / 0.6	0 / 0.0	1 / 0.5	0 / 0.0	0 / 0.0	0 / 0.0	0 / 0.0	4 / 0.3
21.		0 / 0.0	0 / 0.0	1 / 0.6	1 / 0.6	0 / 0.0	2 / 1.6	1 / 1.6	2 / 2.2	1 / 0.5	8 / 0.6
23.		2 / 2.7	9 / 3.0	10 / 6.3	11 / 6.9	2 / 1.1	1 / 0.8	3 / 4.7	3 / 3.4	9 / 4.4	50 / 3.7
24.		0 / 0.0	1 / 0.3	0 / 0.0	0 / 0.0	0 / 0.0	1 / 0.8	0 / 0.0	1 / 1.1	3 / 1.5	6 / 0.4
COLUMN TOTAL		74 / 5.5	297 / 21.9	158 / 11.7	159 / 11.7	187 / 13.8	124 / 9.2	64 / 4.7	89 / 6.6	203 / 15.0	1355 / 100.0

(CONTINUED)

FILE NONAME (CREATION DATE = 02/27/79)

* * * * * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F * * * * * * * * * * * * * * * * * * *

V3 BY SECTOR

* *

V3 / COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
25.	0 0.0	1 0.3	1 0.6	3 1.9	0 0.0	0 0.0	0 0.0	1 1.1	3 1.5	9 0.7
26.	3 4.1	26 8.8	13 8.2	11 6.9	10 5.3	11 8.9	1 1.6	4 4.5	13 6.4	92 6.8
27.	1 1.4	3 1.0	4 2.5	1 0.6	0 0.0	11 8.9	3 4.7	2 2.2	2 1.0	27 2.0
28.	1 1.4	6 2.0	0 0.0	2 1.3	5 2.7	2 1.6	0 0.0	3 3.4	1 0.5	20 1.5
29.	1 1.4	1 0.3	5 3.2	4 2.5	3 1.6	3 2.4	0 0.0	4 4.5	8 3.9	29 2.1
30.	2 2.7	17 5.7	9 5.7	6 3.8	4 2.1	9 7.3	1 1.6	0 0.0	1 0.5	49 3.6
31.	1 1.4	4 1.3	3 1.9	0 0.0	3 1.6	0 0.0	1 1.6	1 1.1	2 1.0	15 1.1
32.	5 6.8	2 0.7	1 0.6	4 2.5	2 1.1	1 0.8	0 0.0	2 2.2	2 1.0	19 1.4
33.	0 0.0	3 1.0	0 0.0	1 0.6	2 1.1	0 0.0	0 0.0	3 3.4	2 1.0	11 0.8
34.	4 5.4	5 1.7	2 1.3	4 2.5	5 2.7	1 0.8	3 4.7	3 3.4	14 6.9	41 3.0
35.	0 0.0	2 0.7	2 1.3	3 1.9	4 2.1	1 0.8	2 3.1	2 2.2	4 2.0	20 1.5
COLUMN TOTAL	74 5.5	297 21.9	158 11.7	159 11.7	187 13.8	124 9.2	64 4.7	89 6.6	203 15.0	1355 100.0

(CONTINUED)

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V3 BY SECTOR

* *

V3 \ SECTOR	1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
36.	2 2.7	2 0.7	1 0.6	2 1.3	0 0.0	0 0.0	0 0.0	0 0.0	2 1.0	9 0.7
37.	0 0.0	0 0.0	0 0.0	0 0.0	1 0.5	0 0.0	1 1.6	3 3.4	2 1.0	7 0.5
38.	0 0.0	2 0.7	1 0.6	0 0.0	1 0.5	0 0.0	0 0.0	4 4.5	2 1.0	10 0.7
39.	1 1.4	1 0.3	0 0.0	0 0.0	2 1.1	0 0.0	1 1.6	3 3.4	5 2.5	13 1.0
COLUMN TOTAL	74 5.5	297 21.9	158 11.7	159 11.7	187 13.8	124 9.2	64 4.7	89 6.6	203 15.0	1355 100.0

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V4 BY SECTOR

* *

V4	COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
1.		59	195	94	111	124	79	43	80	179	964
		79.7	65.7	59.5	69.8	66.3	63.7	67.2	89.9	88.2	71.1
2.		15	102	64	48	63	45	21	9	24	391
		20.3	34.3	40.5	30.2	33.7	36.3	32.8	10.1	11.8	28.9
COLUMN TOTAL		74	297	158	159	187	124	64	89	203	1355
		5.5	21.9	11.7	11.7	13.8	9.2	4.7	6.6	15.0	100.0

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V5 BY SECTOR

* *

V5 / COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
1.	8 10.8	3 1.0	5 3.2	4 2.5	4 2.1	4 3.2	2 3.1	5 5.6	13 6.4	48 3.5
2.	33 44.6	148 49.8	56 35.4	72 45.3	87 46.5	47 37.9	28 43.8	40 44.9	70 34.5	581 42.9
3.	8 10.8	37 12.5	24 15.2	16 10.1	22 11.8	14 11.3	9 14.1	7 7.9	23 11.3	150 11.8
4.	10 13.5	30 10.1	19 12.0	12 7.5	19 10.2	13 10.5	7 10.9	12 13.5	25 12.3	147 10.8
5.	6 8.1	22 7.4	24 15.2	14 8.8	18 9.6	10 8.1	8 12.5	5 5.6	23 11.3	130 9.6
6.	5 6.8	24 8.1	10 6.3	12 7.5	15 8.0	9 7.3	4 6.3	10 11.2	20 9.9	109 8.0
7.	3 4.1	13 4.4	5 3.2	8 5.0	10 5.3	11 8.9	3 4.7	6 6.7	6 3.0	65 4.8
8.	0 0.0	8 2.7	7 4.4	11 6.9	5 2.7	9 7.3	0 0.0	1 1.1	12 5.9	53 3.9
9.	0 0.0	7 2.4	7 4.4	2 1.3	4 2.1	6 4.8	3 4.7	1 1.1	6 3.0	36 2.7
10.	1 1.4	3 1.0	1 0.6	2 1.3	2 1.1	1 0.8	0 0.0	2 2.2	1 0.5	13 1.0
11.	0 0.0	2 0.7	0 0.0	1 0.6	1 0.5	0 0.0	0 0.0	0 0.0	2 1.0	6 0.4
COLUMN TOTAL	74 5.5	297 21.9	158 11.7	159 11.7	187 13.8	124 9.2	64 4.7	89 6.6	203 15.0	1355 100.0

(CONTINUED)

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F V5 BY SECTOR * * * * * * * * * * * * * * * * * * *

FILE NONAME (CREATION DATE = 02/27/79)

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V6 BY SECTOR

* *

V6 / SECTOR	1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
1.	32	154	75	75	72	52	28	29	77	594
	43.2	51.9	47.5	47.2	38.5	41.9	43.8	32.6	37.9	43.8
2.	27	92	68	61	72	59	27	35	83	524
	36.5	31.0	43.0	38.4	38.5	47.6	42.2	39.3	40.9	38.7
3.	2	25	5	9	22	10	1	4	8	86
	2.7	8.4	3.2	5.7	11.8	8.1	1.6	4.5	3.9	6.3
4.	0	4	0	0	0	0	0	0	0	4
	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
5.	1	4	0	4	3	0	0	1	1	14
	1.4	1.3	0.0	2.5	1.6	0.0	0.0	1.1	0.5	1.0
6.	6	15	6	7	13	2	7	14	30	100
	8.1	5.1	3.8	4.4	7.0	1.6	10.9	15.7	14.8	7.4
7.	5	3	4	3	4	1	1	5	4	30
	6.8	1.0	2.5	1.9	2.1	0.8	1.6	5.6	2.0	2.2
8.	1	0	0	0	1	0	0	1	0	3
	1.4	0.0	0.0	0.0	0.5	0.0	0.0	1.1	0.0	0.2
COLUMN TOTAL	74	297	158	159	187	124	64	89	203	1355
	5.5	21.9	11.7	11.7	13.8	9.2	4.7	6.6	15.0	100.0

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V7 BY SECTOR

* *

V7	COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
1.		12	23	16	12	16	14	6	4	15	118
		16.2	7.7	10.1	7.5	8.6	11.3	9.4	4.5	7.4	8.7
2.		14	34	23	23	33	16	13	19	39	214
		18.9	11.4	14.6	14.5	17.6	12.9	20.3	21.3	19.2	15.8
3.		7	30	19	27	14	19	10	20	39	185
		9.5	10.1	12.0	17.0	7.5	15.3	15.6	22.5	19.2	13.7
4.		6	11	7	4	19	7	5	10	20	89
		8.1	3.7	4.4	2.5	10.2	5.6	7.8	11.2	9.9	6.6
5.		1	3	4	0	2	1	0	1	5	17
		1.4	1.0	2.5	0.0	1.1	0.8	0.0	1.1	2.5	1.3
6.		33	174	77	83	90	61	30	33	80	661
		44.6	58.6	48.7	52.2	48.1	49.2	46.9	37.1	39.4	48.8
7.		0	14	6	5	4	3	0	0	3	35
		0.0	4.7	3.8	3.1	2.1	2.4	0.0	0.0	1.5	2.6
8.		1	8	6	5	9	3	0	2	2	36
		1.4	2.7	3.8	3.1	4.8	2.4	0.0	2.2	1.0	2.7
COLUMN TOTAL		74	297	158	159	187	124	64	89	203	1355
		5.5	21.9	11.7	11.7	13.8	9.2	4.7	6.6	15.0	100.0

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V8 BY SECTOR

* *

V8	COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
1.		29 / 39.2	139 / 46.8	15 / 9.5	43 / 27.0	85 / 45.5	29 / 23.4	11 / 17.2	33 / 37.1	66 / 32.5	450 / 33.2
2.		21 / 28.4	65 / 21.9	69 / 43.7	58 / 36.5	60 / 32.1	32 / 25.8	45 / 70.3	28 / 31.5	84 / 41.4	462 / 34.1
3.		7 / 9.5	46 / 15.5	32 / 20.3	29 / 18.2	19 / 10.2	26 / 21.0	1 / 1.6	0 / 0.0	5 / 2.5	165 / 12.2
4.		8 / 10.8	39 / 13.1	37 / 23.4	25 / 15.7	18 / 9.6	35 / 28.2	6 / 9.4	16 / 18.0	39 / 19.2	223 / 16.5
5.		5 / 6.8	3 / 1.0	4 / 2.5	3 / 1.9	4 / 2.1	1 / 0.8	1 / 1.6	5 / 5.6	4 / 2.0	30 / 2.2
6.		1 / 1.4	0 / 0.0	0 / 0.0	0 / 0.0	1 / 0.5	0 / 0.0	0 / 0.0	1 / 1.1	0 / 0.0	3 / 0.2
7.		3 / 4.1	5 / 1.7	1 / 0.6	1 / 0.6	0 / 0.0	1 / 0.8	0 / 0.0	6 / 6.7	5 / 2.5	22 / 1.6
COLUMN TOTAL		74 / 5.5	297 / 21.9	158 / 11.7	159 / 11.7	187 / 13.8	124 / 9.2	64 / 4.7	89 / 6.6	203 / 15.0	1355 / 100.0

FILE NONAME (CREATION DATE = 02/27/79)

C R O S S T A B U L A T I O N O F V9 BY SECTOR

V9 \ SECTOR	1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
1.	1 1.4	2 0.7	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	2 1.0	5 0.4
2.	4 5.4	14 4.7	4 2.5	7 4.4	6 3.2	4 3.2	3 4.7	6 6.7	2 1.0	50 3.7
3.	7 9.5	23 7.7	7 4.4	14 8.8	7 3.7	2 1.6	5 7.8	6 6.7	13 6.4	84 6.2
4.	4 5.4	17 5.7	15 9.5	7 4.4	11 5.9	9 7.3	2 3.1	11 12.4	28 13.8	104 7.7
5.	9 12.2	26 8.8	24 15.2	14 8.8	13 7.0	6 4.8	6 9.4	19 21.3	31 15.3	148 10.9
6.	16 21.6	35 11.8	16 10.1	20 12.6	29 15.5	12 9.7	8 12.5	17 19.1	35 17.2	188 13.9
7.	6 8.1	49 16.5	19 12.0	14 8.8	26 13.9	19 15.3	2 3.1	16 18.0	21 10.3	172 12.7
8.	10 13.5	30 10.1	23 14.6	26 16.4	23 12.3	15 12.1	11 17.2	3 3.4	21 10.3	162 12.0
9.	3 4.1	39 13.1	15 10.1	15 9.4	28 15.0	17 13.7	4 6.3	3 3.4	24 11.8	149 11.0
10.	5 6.8	19 6.4	8 5.1	20 12.6	19 10.2	13 10.5	10 15.6	3 3.4	11 5.4	108 8.0
11.	4 5.4	20 6.7	5 3.2	5 3.1	6 3.2	10 8.1	8 12.5	2 2.2	7 3.4	57 4.9
COLUMN TOTAL	74 5.5	297 21.9	158 11.7	159 11.7	187 13.8	124 9.2	64 4.7	89 6.6	203 15.0	1355 100.0

(CONTINUED)

FILE NONAME (CREATION DATE = 02/27/79)

CROSSTABULATION OF V9 BY SECTOR

V9	COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
12.		1 1.4	8 2.7	14 8.9	10 6.3	9 4.8	9 7.3	3 4.7	2 2.2	5 2.5	61 4.5
13.		3 4.1	6 2.0	4 2.5	2 1.3	5 2.7	5 4.0	1 1.6	1 1.1	1 0.5	28 2.1
14.		1 1.4	1 0.3	1 0.6	1 0.6	0 0.0	3 2.4	0 0.0	0 0.0	1 0.5	8 0.6
15.		0 0.0	3 1.0	2 1.3	2 1.3	3 1.6	0 0.0	0 0.0	0 0.0	0 0.0	10 0.7
16.		0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 1.6	0 0.0	0 0.0	1 0.1
17.		0 0.0	2 0.7	0 0.0	2 1.3	0 0.0	0 0.0	0 0.0	0 0.0	1 0.5	5 0.4
18.		0 0.0	2 0.7	0 0.0	0 0.0	2 1.1	0 0.0	0 0.0	0 0.0	0 0.0	4 0.3
22.		0 0.0	1 0.3	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 0.1
COLUMN TOTAL		74 5.5	297 21.9	158 11.7	159 11.7	187 13.8	124 9.2	64 4.7	89 6.6	203 15.0	1355 100.0

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V10 BY SECTOR

* *

V10 / COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
0.	65 87.8	280 94.3	154 97.5	151 95.0	176 94.1	117 94.4	59 92.2	84 94.4	192 94.6	1278 94.3
1.	3 4.1	10 3.4	3 1.9	6 3.8	10 5.3	5 4.0	4 6.3	3 3.4	5 2.5	49 3.6
2.	5 6.8	6 2.0	1 0.6	2 1.3	1 0.5	2 1.6	1 1.6	2 2.2	6 3.0	26 1.9
3.	0 0.0	1 0.3	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 0.1
4.	1 1.4	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 0.1
COLUMN TOTAL	74 5.5	297 21.9	158 11.7	159 11.7	187 13.8	124 9.2	64 4.7	89 6.6	203 15.0	1355 100.0

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V11 BY SECTOR

* *

V11	COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
0.		0 0.0	0 0.0	2 1.3	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	2 0.1
1.		69 93.2	257 86.5	142 89.9	142 89.3	170 90.9	104 83.9	56 87.5	87 97.8	196 96.6	1223 90.3
2.		4 5.4	28 9.4	12 7.6	12 7.5	15 8.0	15 12.1	7 10.9	2 2.2	7 3.4	102 7.5
3.		1 1.4	12 4.0	1 0.6	5 3.1	2 1.1	4 3.2	1 1.6	0 0.0	0 0.0	26 1.9
4.		0 0.0	0 0.0	1 0.6	0 0.0	0 0.0	1 0.8	0 0.0	0 0.0	0 0.0	2 0.1
COLUMN TOTAL		74 5.5	297 21.9	158 11.7	159 11.7	187 13.8	124 9.2	64 4.7	89 6.6	203 15.0	1355 100.0

C - Housing Variables

Variable Number	Variable Description	Codes
1.	Building Material	1. Dressed Stone
		2. Concrete
		3. Cement bricks
		4. Mud bricks
		5. Tin Huts
2.	House Ownership	1. Owner
		2. Rented
3.	Number of Rooms	1 = 1 2 = 2 3 = 3 4 = 4 . . . .
4.	Number of Families in the House	1 = 1 2 = 2 3 = 3 4 = 4
5.	Household Utilities (Kitchen & Bathroom)	1. Available
		2. Not available
6.	The Desire to move to a new house	1. Yes
		2. No

Variable Number	Variable Description	Codes
7.	Choice of alternative to change the residence	1. Through the Housing Corporation
		2. Loan from the Housing Bank
		3. Co-operatives
		4. Self-support
		5. Do not want to move

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F V1 BY SECTOR *

V1 / SECTOR	1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
1.	39 34.2	16 4.7	17 7.5	11 5.8	26 11.5	10 6.8	12 15.8	123 80.9	190 71.4	444 25.5
2.	45 39.5	209 61.1	105 46.1	118 62.1	128 56.6	111 76.0	44 57.9	26 17.1	63 23.7	849 48.8
3.	21 18.4	95 27.8	72 31.6	61 32.1	70 31.0	25 17.1	20 26.3	3 2.0	13 4.9	380 21.8
4.	9 7.9	22 6.4	34 14.9	0 0.0	2 0.9	0 0.0	0 0.0	0 0.0	0 0.0	67 3.9
COLUMN TOTAL	114 6.6	342 19.7	228 13.1	190 10.9	226 13.0	146 8.4	76 4.4	152 8.7	266 15.3	1740 100.0

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V2 BY SECTOR

* *

V2 \ SECTOR	1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
1.	53 45.5	188 55.0	127 55.7	114 60.0	115 50.9	81 55.5	46 60.5	101 66.4	130 48.9	955 54.9
2.	61 53.5	154 45.0	101 44.3	76 40.0	111 49.1	65 44.5	30 39.5	51 33.6	136 51.1	785 45.1
COLUMN TOTAL	114 6.6	342 19.7	228 13.1	190 10.9	226 13.0	146 8.4	76 4.4	152 8.7	266 15.3	1740 100.0

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* * * * * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F V3 BY SECTOR * * * * * * * * * * * * * * * * * *

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F V4 BY SECTOR * * * * * * * * * * * * * * * * * * *

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* * * * * * * * * * * * * * * * * * * CROSSTABULATION OF * * * * * * * * * * * * * * * * * * *
V5 BY SECTOR

V5	COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
1.		112	298	210	190	226	146	75	152	266	1675
		98.2	87.1	92.1	100.0	100.0	100.0	98.7	100.0	100.0	96.3
2.		2	44	18	0	0	0	1	0	0	65
		1.8	12.9	7.9	0.0	0.0	0.0	1.3	0.0	0.0	3.7
COLUMN TOTAL		114	342	228	190	226	146	76	152	266	1740
		6.6	19.7	13.1	10.9	13.0	8.4	4.4	8.7	15.3	100.0

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F *

V6 BY SECTOR

* *

V6	COUNT / COL PCT	SECTOR 1.	2.	3.	4.	5.	6.	7.	8.	9.	ROW TOTAL
1.		29	134	75	55	96	66	22	31	73	581
		25.4	39.2	32.9	28.9	42.5	45.2	28.9	20.4	27.4	33.4
2.		85	208	153	135	130	80	54	121	193	1159
		74.6	60.8	67.1	71.1	57.5	54.8	71.1	79.6	72.6	66.6
COLUMN TOTAL		114	342	228	190	226	146	76	152	266	1740
		6.6	19.7	13.1	10.9	13.0	8.4	4.4	8.7	15.3	100.0

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 02/27/79

FILE NONAME (CREATION DATE = 02/27/79)

* C R O S S T A B U L A T I O N O F V7 BY SECTOR * * * * * * * * * * * * * * * * * * *

A P P E N D I X IV

The 1967 Exodus Figures

Another aspect of the 1967 refugee movement is more important. The exact total number of those who crossed the River Jordan as a result of the June War is still, until recently, unknown due to the following :

1. After the 1967 war there was a distinction between those who were refugees for the second time, i.e. 1948 refugees who were living in the West Bank, the Gaza Strip and the East Bank and moved to the East Bank as a result of that war, and those who were refugees for the first time from the West Bank and the Gaza Strip. (recognized by the government of Jordan as displaced persons).

2. The refugees of the above two categories came from the Gaza Strip, the West Bank and the East Bank. Those who came from the East Bank are originally of 1948 refugees and came as a result of the aggression after the June War.

3. UNRWA did not take any financial responsibility towards the displaced persons of 1967, but the government did. On the other hand the double refugees were under UNRWA care.

4. Therefore, for either political or financial reasons, the government figures for those who moved as a result of the 1967 war represent only the displaced persons who officially account for 200,000.

Considering the above points, and after checking the J.M.C.D.P. reports, and personal discussion with some members of this committee, the actual number of those who

fled to the East Bank as a result of the 1967 war and the subsequent aggression, was reached as follows. The total number of double refugees and displaced persons is 385,277 (J.M.C.D.P., Registry Section, December, 1968), a break down of which may clear the situation in much detail :

(i) 41,293 displaced persons and refugees returned to the West Bank between 1967, after the war, and 1976 (J.M.C.D.P, Registry Section, 1976).

(ii) 40,000 are double refugees from the eastern Jordan Valley who fled to the eastern uplands as a result of the Israeli aggression - of 1948 refugees and under UNRWA care - (J.M.C.D.P., Registry Section, 1968).

(iii) 85,572 are double refugees from the West Bank under UNRWA care (J.M.C.D.P., File 4/5, Vol.4, 1975; Decision No.45 for the year 1968).

(iv) 24,600 are double refugees from the Gaza Strip under UNRWA care (J.M.C.D.P., Registry Section, 1968).

(v) 194,000 are displaced persons from the West Bank and the Gaza Strip - under J.M.C.D.P. care - (J.M.C.D.P., Report 1976).